

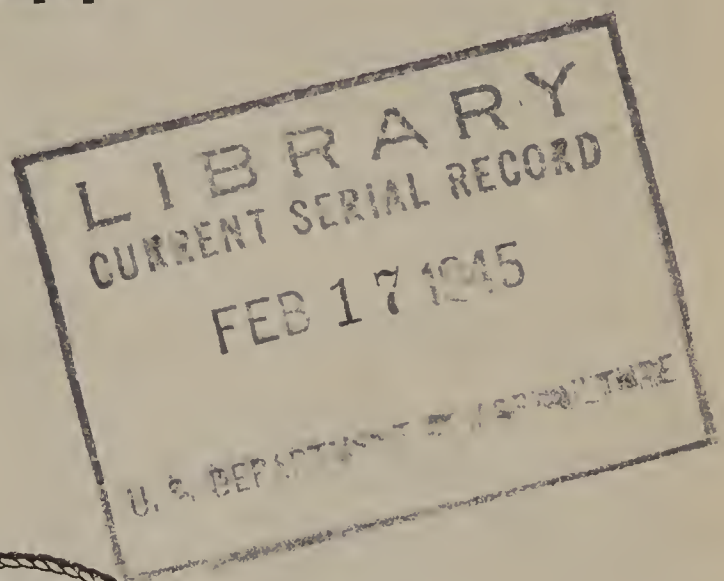
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Bureau

REPORT OF THE DIRECTOR OF THE OFFICE OF DISTRIBUTION

1944



WAR FOOD ADMINISTRATION
U. S. DEPARTMENT OF AGRICULTURE

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REPORT OF THE DIRECTOR OF THE OFFICE OF DISTRIBUTION

UNITED STATES DEPARTMENT OF AGRICULTURE,
WAR FOOD ADMINISTRATION,
OFFICE OF DISTRIBUTION,
Washington, D. C., October 16, 1944.

HON. MARVIN JONES,
War Food Administrator.

DEAR MR. JONES: I present herewith the annual report of the Office of Distribution of the War Food Administration for the fiscal year ended June 30, 1944.

Sincerely yours,

LEE MARSHALL, *Director.*

INTRODUCTION

CONVERSION OF THE FOOD FRONT to a wartime basis reached its peak during the fiscal year 1944. Record quantities of food were produced, increasingly large requirements were met, and stocks were built to the point where they were adequate as a whole to support large-scale offensive war.

Also during the year a beginning toward reconversion to a peacetime market was made. With food reserves established, Government purchasing could be fitted to the maintenance and replenishment of those reserves. Further crystallization of allied plans in the European war theater enabled the Office of Distribution and other Government procurement agencies to review their inventories more closely and to make plans for reselling those portions found to be no longer required to meet immediate war needs.

Many food-distribution controls were relaxed and revoked, and, with production of some foods greater than could safely have been anticipated, methods of marketing abundances here at home had to be developed.

All these efforts brought specific problems that had to be solved if food were to make its best possible contribution toward winning the war. War needs have continued to be high, and the fulfillment of those needs has remained the primary objective of the Office of Distribution.

Feeding more people on a national and international scale requires larger storage stocks, just as feeding more people more food in a single home requires a fuller pantry. Government food holdings during the year necessitated the utilization of more cold-storage and dry-storage space than in the previous year. Commercial stocks—by far the

largest percentage of all food in storage and mostly destined for civilian consumption—were at an all-time peak. Such a high percentage of occupancy, particularly of cold-storage warehouses—filled during the year to 90 percent or more of capacity, as compared with 50 percent in peacetime—presented many problems. Sometimes ships scheduled to transport food did not arrive, and food piled up; sometimes more ships arrived to carry food than had been expected. By D-Day, however, the United States food front was fully prepared to take part in the allied invasion of Europe.

In the main, the techniques developed in the 1943 fiscal year for meeting the requirements of the various claimants on the United States food supply were principally those used for that purpose in the fiscal year 1944.

Firm quarterly allocations, making up a blueprint of food distribution for that period, were made once every 3 months; and each time, tentative allocations were projected for the 9 succeeding months. On an over-all basis, United States armed forces were allocated 13 percent of our record food supplies during the 12 months July 1943 through June 1944, United States civilians 75 percent, and our allies and other countries, 12 percent. Of this 12 percent, 4 percent went to Great Britain, $3\frac{1}{2}$ percent to Russia, $3\frac{1}{2}$ percent to other United Nations and liberated areas, and 1 percent to U. S. Territories and commercial exports. During the 1944 fiscal year the OD procurement for our allies under the lend-lease program, for our Territories, the Red Cross, and other groups totaled 13,787,260,000 pounds of food and cost \$2,091,975,000. Toward the close of the year the first food was purchased for feeding peoples in liberated areas.

In cases where supply was short of total requests submitted by the various claimants, the general policy was to allocate to the United States armed forces a quantity to meet the full extent of their needs, to United States civilians a quantity equal to meet essential requirements, and as much as possible to our allies and to other claimants.

Under this allocations procedure more food was available for civilians than in the immediate years before the war. This was due in great part to the hard-working American farmers, who succeeded in increasing total food production for the seventh year in a row. Of course, shortages of a few foods developed in the sense that the supply of some—mainly of foods imported before the war—was greatly reduced. There were a few other shortages created not by the reduced supply but by the greater purchasing power.

Allocations were effectuated, in part, through a series of orders applying to the distribution of food. With the demand for United States food supplies greater than ever, the wartime food-distribution controls, first created in early 1943, were shaped and fitted during 1944, and others were issued to assure the availability of Government supplies and at the same time to obtain the fairest possible civilian distribution. Wherever the need for controls remained unchanged, experience brought them into closer adjustment with the conditions that had called them forth. Whenever the need for them shifted—and in many cases it did shift—controls were modified accordingly or eliminated.

Although the number of food-distribution orders in operation at any one time—set-aside, limitation, conservation orders—reached a

peak in the fiscal year 1944, toward the end of the year the number of new orders issued was more than offset by the number terminated or suspended. In fact, out of the 121 orders issued since January 1943, only 73 were in effect by late summer of 1944. Many others were relaxed to conform with new conditions. The OD policy has been and will be to terminate, suspend, or relax orders just as quickly as the need for them is ended or reduced.

Not only were food allocations accomplished to some degree by distribution orders, but by various OD price-support operations designed to encourage the necessary production. In connection with this objective, this agency was responsible to the farmers for helping to maintain farm prices and income at reasonable levels and for making marketing as efficient as possible. It was responsible to the food industries for providing a stable basis for the fullest freedom of initiative and competition consistent with the exigencies of war and with its obligations to farmers and the general public. Finally, it was responsible to the general public for insuring the availability of a dependable supply of wholesome food at reasonable cost. Important, too, was the full recognition of the OD's responsibilities to Congress and through it to the American people.

In carrying out its responsibilities, the Office of Distribution throughout the year worked closely with producer and trade groups, and with Federal, State, and local agencies in developing efficient methods of processing, transporting, storing, and distributing foods, as well as in seeing that adequate market facilities were available for handling the record and near-record production of farm and food products. The civilian food programs—school lunch, direct distribution, industrial feeding, and nutrition education—were improved, expanded in some instances, and modified in conformance with changing food conditions.

Knit into the fabric of the wartime distribution program were the Federal marketing services that have developed over the years. Uniform standards; inspection, grading, and classification; marketing research; marketing statistics; market reports—all services, which promote efficiency in the movement from field to consumer—were carried on actively but with a wartime adaptation.

Not only were all OD programs planned and operated in such a way as to contribute the most to the war effort but to be of lasting benefit to farmers, to the food industries, and to the general public. Food-distribution policies toward the end of the 1944 fiscal year looked forward to the end of the war in Europe and subsequently in the Pacific theater. The gradually increasing attention given to problems primarily of a post-war nature did not mean that the Office of Distribution's war programs were diminishing in intensity but that bridges between war and peace were being constructed.

ORGANIZATION

The Office of Distribution, which combines most of the governmental activities directly related to food distribution, was established (as the Food Distribution Administration) on December 5, 1942, through Executive Order No. 9280. Its name was changed to Office of Distribution of the War Food Administration on January 21, 1944.

The organization emerged directly from the former Agricultural Marketing Administration, which was set up in December 1941 to provide centralized responsibility for the development and execution of action programs in the field of agricultural marketing. That framework has proved to be an effective one for enlarged responsibilities occasioned by war.

To carry out its responsibilities, the work of the Office of Distribution is divided among a number of branches and other units.

Basic to OD operating programs is the work assigned to nine commodity branches: Cotton and Fiber, Dairy and Poultry, Fats and Oils, Fruit and Vegetable, Grain Products, Livestock and Meats, Special Commodities, Sugar, and Tobacco. For the commodities under their jurisdiction, these branches initiate and administer food orders; develop and promulgate standards, and conduct inspection, grading, and classification; administer regulatory acts and marketing-agreement programs; conduct commodity-diversion programs; conduct marketing studies and research; collect and disseminate marketing statistics and market news; provide the inspection and grading services required in procurement programs; and give advice and assistance on food-distribution problems to other Government agencies, farmers, distributors, the food industry, and the public generally.

A Requirements and Allocations Control assembles, analyzes, and correlates data on the food requirements of the armed forces, civilians, allied and friendly nations, Territories, and other claimants of United States food supplies; and recommends allocation of food among the claimants.

Two branches of the Office of Distribution deal with food requirements for the home front and administer programs aimed at improving the nutrition and well-being of civilians. These are the Civilian Food Requirements Branch and the Nutrition Programs Branch.

A Procurement and Price Support Branch develops and conducts domestic purchase operations to meet the needs of OD supply and price-support programs; operates loan and diversion programs to support prices; initiates set-aside orders, assists the commodity branches in their formulation, and recommends the amendment or termination of these orders; furnishes information on materials, facilities, equipment, packaging, and containers needed in processing commodities purchased by the OD; and plans and recommends programs for foreign purchase and importation of foods. The branch also recommends and executes sales or other disposition of commodities that are not needed to meet program requirements or that for any other reason must be disposed of.

A Shipping and Storage Branch develops efficient means of transporting food; controls the receipts, custody, storage, and disposition of commodities contracted for by the OD; conducts periodic examinations of commodities owned by the OD and storage facilities in which they are stored; and is responsible for the condition of all OD-held stocks.

A Program Liaison serves as the official point of contact with all groups obtaining supplies or supply assistance from OD and negotiates sales of commodities to other governmental agencies. It also administers the Caribbean and Hawaiian supply programs.

A Marketing Facilities Branch administers the United States Warehouse Act, the 28-Hour Law, and section 201 of the Agricultural Adjustment Act of 1938; cooperates with other Government agencies and with producers of farm products and farm organizations on transportation problems; and conducts studies for improving market facilities for the handling of perishable farm products.

A Program Appraisal Branch reviews, analyzes, and develops food-marketing programs, and appraises their effects on farm income, prices, costs, marketing practices, and consumption, and on the efficient and proper distribution of the available supply of food.

An Industry Operations Branch works with industry on wartime food problems. It provides a central point of contact for food-processing industries and assists them in solving their problems.

A Compliance Branch operates to prevent speculation, profiteering, hoarding, and fraud in all phases of the OD food-distribution program. It also administers the Commodity Exchange Act.

Organizational structures and program operations are constantly being analyzed for the purpose of adapting them to the most economical and effective forms for achieving the objectives of OD programs.

Four Deputy Directors in charge of commodity and industry regulation, supply, civilian programs, and management, and in turn branch and division chiefs, have responsibility for administering as well as planning the various programs assigned to them. This arrangement provides for straight-line planning and operating responsibility and authority from the Director, through the deputies, through branch chiefs, to personnel in 5 regional offices. Regional directors are personal representatives of the Director in their respective regions. Toward the end of the fiscal year, 275 State and area offices were eliminated and 57 district and 17 subdistrict offices were established. This resulted in a reduction in field personnel and a saving in operating costs.

FOOD DISTRIBUTION

The use of American food supplies had to be planned and controlled if our food was to play the most effective part possible in winning the war. During the fiscal year, distribution planning and control were continued under three broad programs: Allocation, civilian distribution, and Government supply.

ALLOCATION

As long as our food supplies were large in relation to demand, we could proceed on the basis of meeting all requirements. But with demands increasing and becoming much larger than supplies of many foods, it became more necessary than ever to budget food expenditures. The mechanism for apportioning supplies among legitimate claimants, set up under Executive Order No. 9280 in December 1942, was therefore continued and improved upon during the past fiscal year.

We call this mechanism "allocation." It is the process of adjusting requirements to the prospective supply in such a way that the supply is utilized to the best possible advantage in the war program. In the

procedure of balancing needs against the total supply, first consideration is given the essential requirements of the armed forces of the United States and its allies. United States civilians must be provided with an adequate diet that meets at least the minimum nutritional requirements as formulated by the National Research Council. The civilian requirements of our allies and of friendly and neutral countries and groups engaged in the war effort must be met to the extent that is allowed by shipping facilities and the existence of supplies over and above the amounts for more critical needs. These competing claims are considered by the War Food Administrator and his advisory staff, and decisions are made on the relative weights to be assigned.

During the past fiscal year the military and war services generally received the quantities requested for current requirements and reserves. This amounted to approximately 13 percent of the total United States supply—about double the 7 percent needed the previous fiscal year. Roughly, 12 percent was delivered for shipment to our allies or used to meet special war needs. The previous year about 6 percent was shipped to our allies. Greatly increased food production the past few years has been enough to fill requirements of our armed forces and to meet the other needs without reducing the civilian pre-war supply. Though civilians received less of some commodities than they would have liked to purchase in view of their increased incomes, they consumed slightly more food during the past year than before the war.

PROCEDURE

The allocations procedure was improved during the year with the establishment on October 28, 1943, of the Food Requirements and Allocations Committee. This committee combined the work of the former Food Advisory Committee and the Inter-Agency Allocations Committee and integrated these activities with the work of the Combined Food Board. Membership on the committee includes representation from the War Department, Navy Department, Office of Foreign Economic Administration, the War Shipping Administration, the Civilian Food Requirements Branch of OD, and the Office of Production. The Director of Distribution was made Chairman of the Committee and the personal representative of the War Food Administrator on the Combined Food Board.

The requirements of the claimant agencies when added together represent the total demand for United States food supplies. Among the claimants are our armed forces, civilians, Territories, and the Foreign Economic Administration (which represents the United Nations Relief and Rehabilitation Administration, the United Kingdom, the Union of Soviet Socialist Republics, other United Nations, including the Latin American countries, and neutrals), as well as numerous smaller organizations requiring food that operate either in this country or abroad. The Veterans Administration, International Red Cross, Inter-American Highway, and War Shipping Administration are among the latter. These various claimants present their requirements estimates to OD's Requirements and Allocations Control. Analyses and interpretations are made and these requests are then set against the supplies available for the year under consideration.

The supply position is calculated from stocks and anticipated production by a Supply Estimates Committee for each commodity.

The Supply Estimates Committee includes representation from the Office of Production and the Bureau of Agricultural Economics, and such additional persons as may be deemed essential for the development of reasonably accurate estimates of supply to be available in the allocation period under consideration. The estimate made by this committee becomes the official estimate of the War Food Administration for making the allocation.

The available supply of food as determined by the Supply Estimates Committee is balanced against the competing requests of the various claimants, and tentative recommended allocations are formulated by the appropriate commodity subcommittees of the Food Requirements and Allocations Committee. These subcommittees consist of specialists from the Office of Distribution, the Office of Production, and representatives of the Departments of State, War, and Navy, and of the War Production Board, the War Shipping Administration, the Foreign Economic Administration, and other agencies as their interests demand.

The quantitative recommendations of the subcommittee are accompanied by a memorandum explaining the reason for such an allocation. At the same time, a proposed "statement of position" for the United States member to take at the meeting of the Combined Food Board is submitted as a recommendation of the subcommittee for final clearance by the Food Requirements and Allocations Committee. The position contains a statement indicating the concurrence with or exception to the proposal by subcommittee members. If the Food Requirements and Allocations Committee believes that an allocation proposal should be altered and if the Chairman is in agreement, the allocation proposal is returned to the appropriate subcommittee for revision.

In the past, actual deliveries to claimants have deviated from allocations. This fact comes out in "allocation audits," which are quarterly comparisons relating each claimant's actual procurement of supplies to his allocation. However, during the past year the audits have reflected a closer and closer relationship between allocation and disappearance. In explanation of this, it is apparent that the technique of deriving requirements has become more realistic and procurement plans have been tied in more closely with allocations.

Allocating food is a continual process of dividing the food on hand and in prospect among the many wartime claimants for it. The allocations are subject to change as military, supply, shipping, and other conditions require. For the fiscal year beginning July 1, 1944, table 1 sets forth the allocations for specified commodities.

TABLE 1.—Comparison of allocations and supplies of specified commodities during the fiscal year 1945

Commodity	Unit	Total allocable supplies	Allocation, July 1, 1944, to June 30, 1945			
			Special-purpose reserve ¹	Military and war services	Lend-lease and other shipments	United States civilians
Meats, total.....	Million pounds carcass weight excluding lard.	23, 586.0	0	4, 904.3	2, 679.6	16, 002.1
Percent of total allocable supplies.....	Percent.....	100.0	0	20.8	11.3	67.9
Beef.....	Million pounds carcass weight.....	9, 872.0	0	2, 590.3	145.4	7, 136.3
Percent of total allocable supplies.....	Percent.....	100.0	0	26.2	1.5	72.3
Veal.....	Million pounds carcass weight.....	1, 315.0	0	114.3	29.9	1, 170.8
Percent of total allocable supplies.....	Percent.....	100.0	0	8.7	2.3	89.0
Lamb and mutton.....	Million pounds carcass weight.....	922.0	0	131.5	90.4	700.1
Percent of total allocable supplies.....	Percent.....	100.0	0	14.3	9.8	75.9
Pork.....	Million pounds carcass weight excluding lard.	11, 477.0	0	2, 068.2	2, 413.9	6, 994.9
Percent of total allocable supplies.....	Percent.....	100.0	0	18.0	21.0	61.0
Dairy Products:						
Butter.....	Million pounds.....	1, 957.6	0	310.0	90.3	1, 557.3
Percent of total allocable supplies.....	Percent.....	100.0	0	15.8	4.6	79.6
Cheese, all.....	Million pounds.....	1, 008.3	0	146.5	241.8	620.0
Percent of total allocable supplies.....	Percent.....	100.0	0	14.5	24.0	61.5
Evaporated milk.....	Million pounds.....	3, 303.5	0	1, 068.8	702.0	1, 532.7
Percent of total allocable supplies.....	Percent.....	100.0	0	32.3	21.3	46.4
Condensed milk.....	Million pounds.....	274.2	0	3.9	62.3	208.0
Percent of total allocable supplies.....	Percent.....	100.0	0	1.4	22.7	75.9
Dried whole milk.....	Million pounds.....	160.5	0	87.1	43.4	30.0
Percent of total allocable supplies.....	Percent.....	100.0	0	54.3	27.0	18.7
Nonfat dry-milk solids.....	Million pounds.....	2 589.0	90.0	67.9	217.7	211.3
Percent of total allocable supplies.....	Percent.....	2 100.0	15.3	11.5	37.0	35.9
Dried whole eggs.....	Million pounds.....	282.3	0	80.5	201.8	0
Percent of total allocable supplies.....	Percent.....	100.0	0	28.5	71.5	0
Canned fish.....	Million pounds.....	762.0	0	170.7	225.4	365.9
Percent of total allocable supplies.....	Percent.....	100.0	0	22.4	29.6	48.0
Turkey.....	Million pounds, dressed weight.....	477.0	0	85.4	1.6	390.0
Percent of total allocable supplies.....	Percent.....	100.0	0	17.9	.3	81.8
Edible fats and oils (excluding butter):						
Food uses—Total.....	Million pounds, fat content.....	6, 026.1	0	371.3	1, 496.5	4, 158.3
Percent of total allocable supplies.....	Percent.....	100.0	0	6.2	24.8	69.0
Dry edible beans.....	Thousand hundredweight, cleaned.....	20, 458.0	0	4, 064.1	4, 893.9	11, 500.0
Percent of total allocable supplies.....	Percent.....	100.0	0	19.9	23.9	56.2
Dry edible peas.....	Thousand hundredweight, cleaned.....	8, 750.8	0	1, 985.2	5, 265.6	1, 500.0
Percent of total allocable supplies.....	Percent.....	100.0	0	22.7	60.2	17.1
Canned vegetables—Total.....	Thousand cases 24/2's.....	281, 910.0	7, 577	84, 979	10, 495.0	178, 409
Percent of total allocable supplies.....	Percent.....	100.0	2.7	30.1	3.9	63.3

Dehydrated vegetables—Total	Thousand pounds, dehydrated weight	277, 172.0	0	199, 863	65, 309.0	12, 000
Percent of total allocable supplies	Percent	100.0	0	72.1	23.6	4.3
Potatoes—fresh ³	Million bushels, farm weight	329.1	0	35.9	3.9	289.3
Percent of total allocable supplies	Percent	100.0	0	10.9	1.2	87.9
Sweet potatoes ³	Thousand bushels, farm weight	53, 109.0	0	1, 853	179.0	51, 077.0
Percent of total allocable supplies	Percent	100.0	0	3.5	.3	96.2
Canned fruit and juices (excluding citrus)	Thousand cases of 24/2½'s	72, 988.7	0	35, 197.5	4, 414.3	33, 376.9
Percent of total allocable supplies	Percent	100.0	0	48.2	6.1	45.7
Citrus fruit—Total	Million pounds, farm weight	15, 294.7	0	1, 878.0	680.0	12, 736.7
Percent of total allocable supplies	Percent	100.0	0	12.3	4.4	83.3
Fresh	Million pounds, farm weight	10, 586.7	0	586.4	171.9	9, 828.4
Percent of total allocable supplies	Percent	100.0	0	5.5	1.7	92.8
Processed:						
Fruit and unconcentrated juices	Million cases of 24/2's	46.2	0	13.9	1.1	31.2
Percent of total allocable supplies	Percent	100.0	0	30.1	2.3	67.6
Concentrated juices	Million gallons	4.2	0	.2	2.6	1.4
Percent of total allocable supplies	Percent	100.0	0	4.8	61.9	33.3
Juice powder, marmalade, citric acid and fruit squash	Million pounds processed	192.1	0	130.6	7.5	54.0
Percent of total allocable supplies	Percent	100.0	0	68.0	3.9	28.1
Dried fruit ⁴	Thousand short tons, processed weight	609, 154.0	22, 000.0	112, 316.0	158, 729.0	316, 109.0
Percent of total allocable supplies	Percent	100.0	3.6	18.4	26.1	51.9
Sugar, beet and cane	Short tons, raw value	6, 818, 434.0	0	51, 094, 971.0	511, 937.0	5, 211, 526.0
Percent of total allocable supplies	Percent	100.0	0	16.1	7.5	76.4

¹ Subject to reallocation.
² Exceeds total of specific allocations by 2.1 million pounds used in manufacture of dehydrated soups and cereals for export.
³ Recommended allocation.
⁴ Recommended allocation, Sept. 1, 1944, to Aug. 31, 1945 (1944 marketing year).
⁵ Includes 190,022 short tons for estimated use in canned and frozen fruits and vegetables, preserves, jams, and jellies.

COMBINED FOOD BOARD

Whereas the Food Requirements and Allocations Committee plans for the allocation of United States supplies, the Combined Food Board, composed of representatives of the United States, the United Kingdom, and Canada, makes allocations recommendations for all supplies of food available to the United Nations. Staff functions of the Board are performed by personnel employed by the respective member governments. The Office of Distribution plans, organizes, directs, and coordinates the activities of the various commodity committees which arrive at recommended allocations on a national and international basis.

Distribution of United States food supplies has been coordinated with the allocation and distribution of United Nations' food resources. OD personnel, serving in parallel position on allocations committees both of the United States and the Combined Food Board, exchange information and tentative positions formally and informally at all stages of preparation of the recommended allocations. They bring together supply and requirements information from each of the member governments for determination of recommended allocations by the commodity committees of the Board. These recommendations in turn are submitted to the Board for its final approval.

To accomplish this integrated operation the past year, approximately 1,200 requirements documents from the various claimants have been considered; 75 United States allocations have been signed by the War Food Administrator covering more than 200 different commodities; the United States Food Requirements and Allocations Committee and its predecessor organization met 30 times; the Combined Food Board met 20 times, and the number of Combined Food Board recommendations in which the United States Government concurred was 25. For each allocation considered during the year both at the national and international level the commodity committees and subcommittees held from 2 to 10 preliminary meetings for the formulation of recommended allocations.

There have been Combined Food Board international allocations of rice, tea, fats and oils, fish, sugar, meats, dairy and poultry products, and others. When the international allocation has been agreed upon, the OD has made certain that the United States' part of the international bargain has been cleared in joint conferences with all interested agencies of the United States and that the final agreement meets the approval of the United States agencies which would be called upon to implement the allocation with War Food Orders, domestic and foreign purchase, warehousing, commercial export licensing, price agreements, and financing through lend-lease and other sources.

The majority of the international allocations have been necessitated by loss of sources of supply through enemy action. The United Nations found it necessary to supply many rice-consuming areas which formerly received rice from sources now held by the Japanese. Some United Nations areas, principally the United States, Brazil, and Egypt, were exporters of rice. The most equitable distribution of the short rice supply of the United Nations required both an international allocation recommendation and a domestic allocation in the United States. The international recommendation was based upon relative urgency of needs in the various deficit areas and the availability and

effective management of shipping. Arrangements were made to furnish semolina and other rice substitutes to certain areas.

The distribution of fish was another problem. Fish production has been hampered by manpower and equipment shortages and the obstacles of naval warfare, whereas the demand for this staple food of the world's low-income population became even more pressing. Under Combined Food Board auspices, implemented in the United States by domestic allocation and distribution orders, the available supplies have been distributed so as best to meet the demands of United Nations military and civilian claimants. Production has been increased where feasible.

Sugar and wheat have been allocated both internationally and within the United States even though they were not in particularly short supply in the producing areas. Lack of rail and water shipping and processing facilities for these bulky commodities made them inaccessible. And the most urgent needs had to be met from the most accessible sources.

Important supply sources for commercial and edible fats and oils were lost during the first few months after Pearl Harbor. The Combined Food Board planned programs for increasing production which were carried out by the various nations in which the production areas lie. Distribution of available supplies was made by an international allocation. Domestic allocation machinery in the United States has operated to insure that supplies on hand and supplies to be purchased would be distributed most effectively according to military and civilian needs.

Purchase programs designed to prevent inflationary competition and induce orderly marketing have been carried out under agreement between various member nations on the Combined Food Board and other members of the United Nations. Following this policy, the British Ministry of Food was designated the exclusive buyer of canned meat within the South American area.

A project of the Combined Food Board which has been of value in the work of allocations has been a joint inquiry into the levels of food consumption in the United States, the United Kingdom, and Canada. The resulting report, Food Consumption Levels in the United States, United Kingdom, and Canada, was issued in April 1944. It outlines the relative per capita consumption in the three countries and makes dietary and distributional recommendations. The report indicates that food-consumption levels in the three countries have usually been adequate during the war period to maintain health and efficiency although supplies of the foods which consumers would prefer have been considerably lower in the United Kingdom than in the United States and Canada. Explanation of this fact may be made in terms of the competition of food with other war materials for limited shipping space, storage and preservation, and other distribution factors. A special committee is keeping the report up to date.

FOOD ORDERS

In order to effectuate allocations and achieve other objectives of the war food program, the Office of Distribution applied and administered a number of controls over food distribution. The first of these controls—known as War Food Orders—was made effective in the

fiscal year 1943, but the number of such orders in operation at one time reached a peak in the fiscal year 1944.

War Food Orders are issued only to meet specific needs. Thus, when it was determined that continued unchecked consumption of fluid milk eventually would result in a shortage of dairy products needed for troops overseas, an order was issued stabilizing milk sales to civilian consumers. Similarly, in order that the armed forces might obtain enough turkey at the right time to enable them to serve turkey for Thanksgiving, Christmas, and New Year's Day dinners, an order was issued in July 1943 prohibiting the sale, purchase, or processing of live or dressed turkeys, except to designated Government agencies, until the quantity needed was obtained. A similar order was issued in 1944 for the same purpose.

In all, 46 new War Food Orders pertaining to distribution were issued during the period July 1, 1943, through June 30, 1944. (This number does not include "Director's Orders," issued to supplement the over-all War Food Orders affecting distribution.) These included restriction orders, such as the turkey order; conservation orders, such as the fluid-milk order; set-aside orders, such as one requiring that a certain percentage of beef output be set aside for sale to Government agencies; and allocation orders, such as one dividing short supplies of milk sugar among all users. No economy orders, such as the order on bread, which was intended partly to provide for more economical distribution, were made effective during this period.

From the standpoint of direct contribution to the war effort, perhaps the most important orders are those with set-aside provisions. During the 1944 fiscal year, there were set-aside orders on cheese; butter; nonfat dry milk solids; meat; canned fish and shellfish; canned fruits, vegetables, and juices; apples; dried fruits; dehydrated vegetables; rice; dry edible beans; and fish oils. These orders were so written as to promote an orderly distribution of civilian supplies. Thus, the set-aside order on butter provided that the Government buy all of its supplies for 12 months during the 6 months of highest production. This enabled civilian supplies to be fairly even throughout the year.

By the same token that food orders were issued only to meet specific needs, they were terminated when the need for them had passed, or amended to conform with changing conditions.

A number of orders were relaxed. For instance, quantities of mace and nutmeg, which packers of these products could deliver, were increased. Other orders were terminated. Included among these were a number providing for the allocation of certain industrial oils among all users. They were withdrawn because of a general improvement in the fats and oils supply situation.

By the end of the fiscal year, the total number of orders in effect had dropped from the peak number in operation earlier in the year. By late summer 1944 only 73 orders of the original 121 were still in effect. This trend probably will continue unless unforeseen war developments require a retightening of controls on the distribution of food.

War Food Orders is the new designation given during the year to the war food series formerly issued as Food Distribution, Food Production, or Commodity Credit Orders.

ENFORCEMENT

Lack of full understanding of the War Food Orders, as in the preceding year, was the principal cause of minor infractions. Many of these minor infractions occurred, in spite of the care taken to distribute widely the printed orders and explanatory information to all members of the affected trade and to hold educational meetings with industry representatives and trade groups. A personal call on the violator, in most instances, continued to gain immediate cooperation and compliance.

Because of the number of violations, the OD concentrated on the more important and flagrant ones. It assembled evidence and assisted the Office of the Solicitor and district attorneys in prosecution. A majority of the 7,500 complaints received during the year were formally investigated by accountants and investigators, or the offenders were warned by letter. For example, in the last quarter 947 complaints were referred for formal investigation; 432 were handled by letter.

During the year, investigators and accountants made 5,353 investigations in connection with 62 basic War Food Orders. Of the 4,182 "investigator" cases, 70 percent concerned meat and bakery products orders. Most of the 1,171 "accountant" cases concerned the set-aside and quota provisions of food orders. One hundred and eight accountant cases were system installations for market agents designated to administer WFO 79, the fluid-milk and cream sales-quota order.

A summary of investigations and other food-order-enforcement activities follows.

TABLE 2.—*Food-order-enforcement activities*

Field office	Investigations conducted by—		Convictions and court orders	Suspension orders	License and permit revocations	Warning letters
	Investigators	Accountants ¹				
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
New York.....	1,001	419	32	8	33	228
Atlanta.....	662	51	9		161	57
Chicago.....	959	177	24	3	26	332
Dallas.....	766	307	14	1	3	164
San Francisco.....	312	99	4			158
Des Moines ²	365	84				46
Denver ²	117	34	3			59
Total.....	4,182	1,171	86	12	223	1,044

¹ Includes 108 system installations for milk market agents under WFO 79.

² Des Moines and Denver offices discontinued in November 1943.

In 86 cases, criminal convictions or injunctions were obtained through evidence assembled for the Office of the Solicitor and district attorneys. At the year's end, approximately 125 cases were pending with the Office of the Solicitor or district attorneys for criminal or civil action. In 48 cases, injunctions restraining subjects from violating War Food Orders were obtained. The following 3 instances of conviction brought about through compliance investigation are illustrative:

The proprietor of a restaurant in a southern city was fined \$5,000 and given a 6 months' suspended sentence for slaughtering without a

permit and delivering diseased meat in violation of permit and sanitary provisions of FDO 27 (superseded by WFO 75).

A dairy in an eastern city was fined \$1,000 after pleading guilty to the sale of cream containing more butterfat than the percentage permitted by the butterfat conservation order (WFO 13).

OD accountants who examined the books of a nationally known food processor found he had violated WFO's 40 and 41 because he had processed more than a million pounds of frozen and liquid eggs in excess of quota restrictions and had retained in storage more than his quota of eggs. The company was fined \$2,500 for violating WFO 40 and \$10,000 for violating WFO 41.

In 12 instances administrative proceedings of the Office of the Solicitor resulted in suspension orders denying for periods ranging from 15 days to 6 months, the right to receive, use, or deliver any material subject to priority or allocation control. Administrative proceedings resulted also in suspension or revocation of licenses or permits, chiefly under the meat orders.

The purchase, transportation, storage, and shipping by the OD of the huge quantities of food (see Government Supply) involved so many persons and transactions that profiteering and fraud were always possible. One means of preventing profiteering is an accurate and timely knowledge of cost. The cost-accounting investigation of processors' costs and price-cost-profit surveys of the OD provided procurement officers with this kind of factual information. The OD also assisted in the procurement program by investigating complaints of alleged fraud and aiding in prosecutions where violations were disclosed.

Basic information was provided by 20 over-all price-cost-profit surveys of industries which supplied more than three-fourths of the 5 billion dollars' worth of food products purchased by OD in the 3 years ended April 30, 1944. This procurement program included thousands of kinds and grades of products for which widely varying prices were paid. The surveys compared pre-war and wartime operating conditions for all products purchased in large quantities and many other products bought in smaller quantities. Typical commodities included were canned beets, condensed and evaporated milk, dried whole milk, nonfat dry milk solids, canned and dehydrated fruits and vegetables, canned fish, flour, and concentrated citrus juices.

The survey indicated that profits of many companies had increased substantially since the Government began buying their products. The enormous increases in production volume were a contributing factor. In the absence of authority to renegotiate contracts where profits were excessive, full information on production costs was an essential basis for fair and reasonable pricing. The surveys gave this needed background to procurement officers.

Cost-accounting investigations were made at 70 plants in all sections of the country, where accurate information on processing costs and profit margins was obtained directly from suppliers' records. During the year, cost accountants began investigating meat and milk products and completed field investigations on dried eggs, concentrated juices, and dehydrated potatoes, onions, carrots, and beets, and tomato soup and flake.

With information about variations among individual plant costs and cost trends, procurement officers were able to let contracts more

selectively and to have for use in contract negotiation facts comparable to those in the hands of prospective contractors. They were thus enabled to eliminate higher cost firms from their purchasing programs. These cost investigations were particularly useful in contracting for products of the new war industries, especially for dehydrated and concentrated foods, on which the cost background was meager.

Investigations and audits are made where there are indications of fraud, pilferage, or invoice and inventory shortages in connection with the purchase, transportation, and storage of OD-bought commodities. They are made also on the failure by firms to honor priority orders issued under WFO 71 and to comply with the quota provisions for ship suppliers under WFO 74.

During the year 157 cases were handled. The two that follow illustrate the results of procurement investigations and audits:

(1) Lamb carcasses shipped by 3 large packers to a terminal warehouse for account of the Federal Surplus Commodities Corporation disclosed shortages in 35 cars. Deductions in payment saved the Government \$1,149.31.

(2) Meat shipped from a Midwest cold-storage warehouse arrived in a damaged condition. The Government bore the reconditioning cost. After an investigation disclosed negligence, however, the warehouse operator paid the Government \$5,058.40.

During the year the OD conducted compliance investigations, accounting investigations, and audits and system installations in connection with Section 32 (Public Law 320) programs, which include marketing agreements and orders under the Agricultural Marketing Agreement Act of 1937, and school-lunch, school-milk, export, and diversion projects. Of 93 compliance cases so investigated, 87 dealt with marketing agreements and orders, 2 with school lunch, and 4 with diversion.

The OD devises, installs, and services accounting systems for agencies administering market agreements and orders and makes special and periodic audits of the records of market administrators and control committees. During the year it made 92 detailed periodic audits, 4 system installations, 4 handler audits, and 1 accounting investigation in connection with marketing agreements, orders, and licenses, and 3 accounting investigations under other Section 32 programs.

CIVILIAN DISTRIBUTION

American food production has pushed to new heights in each of the last 10 years. The extent of the increase to meet wartime needs has been enough to fill the requirements of our armed forces and to meet other war needs without reducing the civilian pre-war supply. But increased incomes, particularly in the lower brackets, stepped up consumer buying power. The lid was held on prices and created a demand which, if uncontrolled, would have absorbed the increase in food production and left military and other strategic needs unfilled.

Civilians have been receiving, under the allocations system, a smaller total supply of foods than they would have liked to buy, although slightly more than they received before the war. The relationship of civilian supply to demand is not, however, the same for any two commodities. Some commodities, such as most of the dehy-

drated foods, never reach civilian consumers in America; military and export needs take about all of these commodities we can produce. Meats and dairy products are examples of foods that consumers demanded in greater quantities than were supplied. Potatoes and cereals, on the other hand, have been fully equal to the demand.

Foods in the first of these categories, of course, require no special control over civilian distribution. Those in the second, in which demand exceeds supply, require rationing of one kind or another to insure everyone his fair share of the total and to insure conservation of the supply from season to season. Rationing may be employed only in the earlier stages of marketing, or it may be extended to the ultimate consumer. Foods in ample supply—the third category—require no control except as speculation, crop delays, or other influences may interfere with orderly distribution.

Since controlled prices reduce the sensitivity of markets and since other factors, such as manpower shortages and transport difficulties, have tended to diminish competition for trade, even the most abundant foods sometimes have required special measures to direct their flow into different areas and different uses, and to assure storage of adequate amounts to tide over seasons of little or no production.

DEVELOPMENT OF CIVILIAN REQUIREMENTS

One of the principal functions of the Civilian Food Requirements Branch of the OD is to act as claimant for United States civilians in the allocations procedure. In performing this function, the Branch twice yearly submits for consideration by the Food Requirements and Allocations Committee a civilian food program which sets forth the civilian requirements of various foods and related items needed during a 12-month period to maintain the civilian population at a high level of health and productive efficiency and to provide them with as varied and palatable a diet as wartime conditions will permit.

Because current high levels of consumer income would have enabled our civilian population to consume most of the food grown on American farms, food requirements for United States civilians were developed that would provide civilians with enough food, insure the efficient use of the supply available, and permit the release of substantial quantities for our armed forces and allies. In determining civilian requirements for individual foods, consideration is given to the relative importance of the food from the standpoint of nutritive value and the food habits, historical consumption patterns, and estimated demand during the coming year. In addition, an analysis is made of the problems to be encountered in the distribution of a short supply.

Requirements submitted are carefully reviewed to insure that the food supply requested will meet the necessary levels of nutrition for our civilian population and will provide adequately for the special needs of vulnerable groups, including infants, growing children, the sick, and workers in heavy industries. To measure the nutritional adequacy of the food supply requested, requirements are translated into their nutritive values and compared with the recommended allowances of the National Research Council. If the food supply does not provide adequately for any of the essential nutrients, appropriate adjustments are made in the requirements for foods contributing such nutrients.

A civilian food program establishing the food requirements for civilians for the year beginning January 1, 1944, was submitted for allocation purposes in November 1943. In June 1944, a new program was submitted establishing food requirements for the year beginning July 1, 1944. Each program covered the civilian requirements for approximately 250 foods and related items, such as vitamins and essential oils. Although all these items were not under allocation, requirements for them had to be developed in order to judge the overall adequacy of the total food supply.

RATIONING

Allocation—implemented by food orders—divides our total food supply among the various major claimants. Civilian rationing carries the dividing process one step farther. It divides the civilian share of the total supply among the millions of individual consumers in the United States.

For essential foods or groups of foods that are required in roughly equivalent amounts by all consumers and the supply of which can be reasonably well controlled, rationing is unquestionably the most satisfactory method of orderly distribution under price ceilings, when supplies available are substantially below unrestricted demand. The need for rationing, and its time and extent, are determined by the War Food Administration, while actual administration of rationing is the responsibility of the Office of Price Administration. WFA notifies OPA periodically of the quantities of foods available for civilian consumption and consults with it each month on the adjustments necessary in the operation of the rationing program to reflect changes in civilian food supplies.

In order to obtain information currently as to the distribution of foods under rationing, a 2-way communication channel was established and maintained throughout the year with the food-distribution trade. In all major trading areas of the United States approximately 175 local food-distribution advisory committees have been organized. These are composed of approximately 4,000 representative wholesalers, retailers, food brokers, wholesale meat distributors, fruit and vegetable distributors, bakers, and restaurant and hotel operators.

The committees meet monthly, during the first week of each rationing period, to report on adequacy of the supplies of about 80 staple food items. The reports indicate whether the movement of these foods at the retail level is consistent with the supplies available for distribution. The 175 monthly reports provide the earliest organized reaction to rationing policies and point to areas of food shortage or relative abundance. During the fiscal year reactions and suggestions of the advisory committees influenced such major policy changes as the suspension of rationing of certain types of meat.

Some commodities in tight supply have not been rationed; rationing would necessitate many adjustments by both consumers and the trade and would be administratively expensive and complex. Other distribution controls have been employed instead. Fluid milk is a case in point, because of its perishability and wide differences in consumption and production by regions. Yet, because milk was needed urgently for many manufactured dairy products, it became necessary during the fall of 1943 to check the steadily rising consumption of fluid milk.

By a curb on fluid-milk sales at the dealer level, this was accomplished in most large cities.

Less essential foods or those purchased infrequently and in short supply—such as spices—are difficult to ration at the consumer level, and uniform per capita distribution of these foods would hardly justify the administrative burden of such a program. Finally, for commodities that are produced and sold locally in most parts of the country, the difficulty of controlling supplies might well make effectively administered rationing almost impossible.

Distribution of a number of commodities, therefore, was controlled the past year through the War Food Orders. In some cases, processors, dealers, or other handlers were limited to a certain volume, usually by means of quotas based on percentages of business in a base period, in order to assure all regular trade channels their proportionate share of supplies. In other cases, the less essential uses of the commodities were restricted or prohibited. For commodities so affected, responsibility for equitable distribution to ultimate consumers was left to the trade.

During the year such controls of distribution were applied to several imported commodities (tea, cocoa beans, certain spices, and salt fish), edible molasses, rice, certain tobaccos, and to fluid milk, cream, and milk byproducts in the larger marketing areas as already described. Restrictions have been imposed on certain uses of cocoa beans, honey, figs, apples, Concord grapes, and walnuts; on the composition of soap; on the sale of heavy cream; on the use of milk solids in ice cream and other frozen dairy foods; on the use of most fruits for alcoholic products; on the use of malted grains, malt sirup, and rice for brewing; and on the distribution of oil of peppermint.

LOCAL SHORTAGES

For some foods, during brief periods of the year, rationing or alternative controls did not achieve the most desirable distribution among the different regions of the country. Such incidents occurred because foods, when in seasonal or otherwise short supply, tend to stay closer to home and to move in less than normal proportions from surplus to deficit producing areas. There were times, for example, when meats and butter, even though rationed, were short in coastal areas and fully adequate in midwestern producing areas. There were temporary periods, too, when outlying communities were left virtually without certain foods when wholesalers narrowed their delivery areas because of trucking restrictions and the greater profits in markets closer by. A few hospitals and other institutional buyers had difficulties because their practice of purchase on a bid basis left them with no established supply sources of which they could claim to be regular customers.

For rationed commodities, responsibility for distribution problems of this kind rests with the Office of Price Administration. But OPA and OD worked together informally in dealing with such problems. For nonrationed commodities, full responsibility is OD's.

OD dealt with such problems locally and specifically as they arose. Of particular help was the "know-how" and excellent support of people in the food trade and distribution fields. The cooperation of trade groups was requested in specific instances—to increase their shipments to certain areas or communities or to accept accounts of buyers unable

to find supply sources. Figures on population shifts as indicated by ration-book registrations were distributed among the trade to help guide them in making adjustments.

A special distribution problem arose in areas where population had grown rapidly enough to overburden existing food-distribution facilities, especially of retail stores. The opening of new stores in these areas lagged because of food-supply difficulties, fear that the market expansion would be only temporary, and alternative opportunities that were more attractive than distributing food under controlled margins. Some assistance was given to the trade in such areas in obtaining sources of supply for new outlets and in presenting to local manpower boards the need for declaring retailing to be an essential field of employment.

TEMPORARY AND LOCAL ABUNDANCES

The direct opposite of the local shortage problems were the temporary and local abundances that occurred whenever demand and local supply failed to coincide. Usually these problems were not "surpluses" in the pre-war sense. They were to be expected during war-time, but when or where they would occur or their extent could not be readily foreseen. They were the price we had to pay to be sure of having enough. Farming never has been an exact science—too much depends on the weather and other conditions over which the farmer has no control. In some cases these seasonal abundances were the result of abnormally heavy supplies during the seasonal peak of marketings at a time when storage space was at a premium. Private enterprise could not possibly shift labor and facilities sufficiently or rapidly enough to assure maximum use of such foods.

In addition to purchase and storage of a number of these foods by OD, efforts were made to direct the force of consumer demand to them and away from commodities in less plentiful supply. Such efforts took two parallel courses. A straightforward appeal to the trade to promote, through advertising, store display, and other merchandising methods, the sale of the abundant commodities was accompanied by attempts to obtain trade cooperation in reducing price or offering other consumer inducements. Simultaneously, an intensive program to direct consumer attention to the same foods was carried on in cooperation with the press and radio and other media of information and with the help of food advisers in all fields.

INDUSTRIAL FEEDING

The food needs of industrial workers call for special consideration, and Government activities encouraging provision for these workers of adequate, nutritious meals on the job were continued and accented during the year.

In addition, it was possible through the industrial feeding program to provide necessary additional amounts of certain foods. The furtherance of the workers' opportunity to buy a substantial midshift meal without using their ration allowances proved to be a satisfactory way of meeting their food requirements under rationing.

To further the industrial feeding program, an Inter-Agency Committee on Food for Workers was formed in late 1943 under OD leadership. It included representatives of the War Production Board,

Office of Price Administration, War Manpower Commission, United States Public Health Service, Federal Works Agency, War and Navy Departments, and the Maritime Commission. Surveys were made of the adequacy of feeding facilities for industrial workers and of the needs for additional facilities. Educational and advisory work was carried on with the management and labor groups in industry, and active assistance was given to plants interested in establishing facilities.

This aid included help in planning installations and operation of in-plant food services; in getting priorities for and obtaining materials, equipment, and supplies; in recruitment and training of employees; and in obtaining food supplies. In addition, nutritional education was carried on in war plants and closely integrated with in-plant food-service operations.

SPECIAL FOOD NEEDS

The special needs of infants, children, and expectant and nursing mothers also must be borne in mind in administering the food supply. During the year no serious problem was encountered here, but a problem did arise in the case of invalids and other persons requiring special diets. Local ration boards were given wide discretion in dealing with such cases. To permit more orderly and uniform handling and to provide a basis for preventing abuses, a Committee on Medical Food Requirements was appointed by the National Research Council at the request of WFA. It was intended that this committee should determine the specific diseases that require special allowances of rationed foods, the kinds and quantities of foods required, and the best procedure for certification of individual cases.

DIRECT DISTRIBUTION

To assist certain groups within the population to receive a fair share of the available food and at the same time to provide for an effective use of foods available in relative abundance, various agricultural commodities are distributed for use in school lunch programs, charitable institutions, and by relief recipients. For the most part, these commodities are purchased under WFA's price-support purchase program, although purchases for direct distribution are limited to the extent that outlets are available. In addition, distribution is made occasionally of commodities purchased for various war-supply programs that because of changing requirements or other factors cannot be used for the purpose.

Authority for these purchases and for their distribution for relief purposes is contained in Section 32, Public Law 320, 74th Congress, as amended, and in Public Law 165, 75th Congress. Sometimes the commodities are donated directly to eligible agencies and sometimes they are distributed through State departments of agriculture or education or through welfare institutions.

Over a period of years the United States Department of Agriculture and WFA have emphasized the expansion of markets for agricultural products. Direct distribution, by furnishing commodities to persons in low-income groups and to school-lunch programs, substantially increases consumption of many foods that are important to our agricultural economy. In addition, the introduction of foods that the re-

cipients do not ordinarily eat has a far-reaching effect on their dietary habits.

During the fiscal year approximately 240 million pounds of food were distributed under direct distribution. Commodities distributed in the greatest volume were potatoes, canned grapefruit juice, and evaporated milk. The number of children in schools and child-care centers benefiting by the program increased steadily during the year, and in April 2,733,000 children in 13,000 schools and child-care centers were receiving meals prepared in part with the approximately 68 million pounds of food made available through this program. In addition, approximately a million recipients of welfare assistance or dwellers in institutions received commodities or meals prepared from commodities distributed through this program during the same month.

COMMUNITY SCHOOL LUNCHES

As the spearhead of its programs for developing better markets for farmers and for improving the health of our Nation's children, OD continued its assistance to community school-lunch programs during the fiscal year by furnishing a part of the food necessary to prepare lunches for children in schools and child-care centers. Even greater assistance was provided by reimbursing sponsors for a portion of the foods they purchased locally for school lunches. Emphasis was on foods in local and seasonal abundance. Although total participation in the program was not so great as in 1942 or 1943, the quality of the lunches served was much improved under the reimbursable operations.

The program of reimbursing sponsors for their local purchases of selected foods, initiated on an experimental basis during the 1943 school year, was expanded to cover nearly 3,700,000 children in nearly 30,000 schools in March 1944, the month of peak participation. In addition, 225,000 children in 2,200 programs in Puerto Rico and the Virgin Islands had lunches made in part from food distributed by OD.

Any nonprofit school or child-care center, regardless of the children's ability to pay, was eligible to receive assistance if it needed it in order to serve an adequate lunch to every child. Under the reimbursement program, local sponsors of lunch programs agreed with WFA to serve one of three specified types of lunch: A complete meal furnishing from a third to a half of the child's daily nutritive requirements; a less complete meal; or a serving of half a pint of milk.

The sponsoring agency agreed to offer the lunch to all children in the school with no discrimination between paying and nonpaying children. OD for its part agreed to reimburse the sponsor for its purchases of a selected list of foods up to a maximum amount based on the number and type of meals served. The maximum rate of reimbursement per meal for the three types was respectively 9, 6, and 2 cents.

Because WFA is the chief importer of food into Puerto Rico and the Virgin Islands, the reimbursement program did not operate in that area. Instead, stocks of suitable foods were made available for direct distribution to schools from the Caribbean supply program. The popularity of the school-lunch program in this area is attested by the appropriation of \$2,000,000 by the Insular Government of

Puerto Rico as a local contribution to the program during the 1945 school year.

Realizing that the school-lunch program could be entirely successful only when all possible resources were mobilized, OD during 1944 solicited the cooperation of State departments of education and other State agencies. State-wide agreements outlining the responsibilities of the various agencies in the program were made in 26 States.

Continuation of the community school-lunch program for the 1944-45 school year was assured by the appropriation by Congress of \$50,000,000 for its operation. It will continue to operate under local sponsorship of school boards or other school organizations, parent-teacher groups, civic groups, and other nonprofit organizations, with OD reimbursing local sponsors and also distributing selected foods purchased through its price-support program. OD expenditures in any State for the program cannot exceed the total amount spent by the local sponsors, including the value of donated services and supplies furnished by the sponsoring agency for the program.

COMMUNITY FOOD PRESERVATION

The major aim of the community food-preservation program was to prevent waste of food that was available locally in excess of immediate consumption needs. During the year the establishment of community food-preservation centers was encouraged in areas where fresh produce was abundant, particularly near farmers' markets and urban areas containing numerous Victory Gardens. Besides providing facilities where families might can the food produced locally for their own use or for school lunch, these centers became increasingly important in the preservation for school lunch of foods under the direct distribution programs.

From a survey conducted by OD, the U. S. Office of Education, and the Extension Service, the location of community canneries capable of processing truckloads and carlots of produce was determined. There were during the year 2,949 steam units in operation of which 1,810 could process quantity lots in addition to the regular canning. Of the 26 million quarts of food processed last season in these canning centers, approximately 15 percent of the fruits, 12 percent of the vegetables, and 10 percent of the meats were distributed to schools for school lunches, and to institutions and welfare agencies. These figures do not include food processed in small pressure-cooker units.

NUTRITION EDUCATION

Although there has been a remarkable increase in the awareness of the importance of an adequate diet to health, the understanding of which foods make up an adequate diet was still very limited and spotty. The relative disappearance from the markets of certain foods consumers had been accustomed to buy and the rationing of other foods made it all the more important for housewives to know what foods should be used to provide nutritional alternates, and how existing supplies could best be conserved.

At the end of the fiscal year, approximately 3,900 local nutrition committees had been set up throughout the United States and, in cooperation with the OD, were participating in a program of nutrition education. The job of these volunteer committees was to inform

housewives of the principles and benefits of good nutrition and food conservation, and to initiate and further community efforts for the development of projects, the improvement of nutritional status, proper food selection and preparation, and preservation.

The local nutrition committees have been built around a nucleus of such people as the home economics teacher in the public schools, the extension home demonstration agent, and the public health nurse or doctor. State committees, in each State, give general guidance and direction to the local committees. At the Federal level, OD policies are formulated in collaboration with a planning committee made up of the representatives of Federal agencies which carry on individual nutrition programs of their own. Thus the full leadership resources of the country in the field of nutrition have been mobilized.

The program as a whole has developed since May 1941, when the first National Nutrition Conference was called in Washington by the President. The work was carried on by the Office of Defense Health and Welfare Services until March 1943, when nutrition functions were transferred to the Department of Agriculture.

The Nation's housewives were informed through local sources how they could do the best job of feeding their families on the foods available. On a longer range, they were taught the fundamental principles of good nutrition represented by the National Research Council's recommendations of the daily minimum requirements of food nutrients essential to good health.

These recommendations were popularized through the "Basic 7" food chart, the "National Wartime Nutrition Guide," and other materials, and were further publicized through food-industry advertising, motion pictures, and radio programs.

For American consumers faced with the necessity of making food-habit changes and adjustments, OD and WFA as a whole have provided a comprehensive informational program in cooperation with other agencies and commercial groups. Regardless of the scarcity of some foods, the market always offers many foods in abundance. From these plentiful commodities, it is possible for consumers to select the elements of a well-balanced and appetizing diet. During 1944, decided effort was made to supply consumers with information that would help them make the best use of foods currently plentiful. To this end, OD's market news service undertook the additional job of furnishing regular reports on market supplies, quality, and price trend adapted to the special needs of consumers.

Wartime food bulletins were furnished by market reporters in many metropolitan areas to press and radio outlets and to food advisers assisting housewives in food-management problems. Lists of abundant foods were supplied to magazine food editors, cookery teachers, home economists, and many other leaders who used the lists in building their menu and recipe services around plentiful commodities. Trade promotion campaigns were tied in closely with this work, so that wholesale and retail food distributors, public eating places, and other handlers encouraged sales of the commodities consumers were being urged to buy.

FOOD ENRICHMENT

The most significant wartime improvement in the nutritive value of the civilian diet has been in its increased content of iron, thiamine,

riboflavin, and niacin, resulting chiefly from the higher levels of flour and bread enrichment. During the fiscal year the Office of Distribution, working with trade and industry members and State nutrition officers, took the lead in encouraging increased food enrichment. As the year closed, it was estimated that 65 percent of all white flour was being enriched, as compared with 50 percent in 1942 and less than 1 percent in 1940.

During the year OD actively encouraged enrichment of corn grits, corn meal, cereals, and macaroni-type products. Another important development was the enrichment of margarine with vitamin A. Consideration was being given to the enrichment of some canned goods with synthetic vitamin C.

OD worked with nutritionists and other food specialists to promote domestic distribution of soya flour, flakes, and grits. Soya flour is one of the few vegetable products containing substantial amounts of protein which compares nutritionally with animal proteins.

REDUCTION OF FOOD WASTE

Since an estimated 20 to 30 percent of all food produced in this country has been wasted somewhere between production and use, a program was developed to reduce this food loss to the minimum. Methods used involved reaching all sources of food waste with information on the amounts and kinds of food waste and means of saving food; community organization to meet local food-waste problems; and an action program to reduce food losses in distribution channels.

National women's organizations, men's civic clubs, educational foundations, churches, and the public school system were enlisted in the forming of study groups and speakers' bureaus, and in the use of all kinds of local media to acquaint the public with the facts on food loss through wasteful practice in buying, storing, preparing, and serving food.

To reduce food waste in distribution channels, the food-conservation program included cooperation with restaurant and retail trade associations in devising waste-control measures. Other action was embodied in food orders regulating practices in the distribution of bread and milk.

GOVERNMENT SUPPLY

FOOD PROCUREMENT

The purchase of more than 13 billion pounds of food and more than 600 million pounds of nonfood items constituted the biggest "action" program of the Office of Distribution during the past fiscal year. The cost on an f. o. b. basis was 2,095 billion dollars—a daily food bill averaging $5\frac{3}{4}$ million dollars.

The over-all procurement responsibilities involved not only purchases to meet specific supply programs, but also the development of new processing techniques, new packages, expanding processing and storage facilities, standardization and inspection, food orders, labor recruitment, and other activities. Included in the purchase operations was the important task of fulfilling price-support commitments to producers as directed by Congress.

To coordinate the huge procurement operations of the Government and prevent competition between procurement agencies, arrangements

were in force whereby substantially all the purchases of food and foodstuffs were made by either the Army or WFA. These agencies then transferred supplies to other agencies as needed. The Army and WFA conferred closely on planning and scheduling the purchases and handling the stocks.

A prime policy in the purchase of OD stocks during the year was to scrutinize existing procurement programs so as to bring them as closely as possible into line with the actual, known requirements of claimants and necessary working stocks. This policy enabled OD to reduce previously planned procurement in some cases and in others to reduce or terminate set-aside orders.

The year's supply program for OD included the purchase of cheese, butter, dried eggs, nonfat dry milk solids, canned pork, cured and frozen pork, lard, dried raisins and prunes, dry beans and peas, flour, rice, sugar, and edible linseed oil. While these 15 items accounted for about 9 billion pounds out of the nearly 14 billion-pound total, the complete list of purchases contains about 280 items.

TABLE 3.—*Purchases of the Office of Distribution, WFA, by commodities, quantity, and cost, fiscal years 1943 and 1944*

Commodity	1943		1944	
	1,000 pounds	1,000 dollars	1,000 pounds	1,000 dollars
Dairy and poultry.....	831,368	415,557	1,868,575	579,726
Meats.....	1,986,216	621,500	3,142,644	670,000
Fish.....	397,586	65,767	185,043	61,577
Fats and oils.....	1,429,536	204,740	859,587	134,451
Fruits.....	825,063	85,855	546,030	73,750
Vegetables.....	1,330,060	83,755	1,574,854	113,990
Grains and cereals.....	2,265,889	87,562	2,231,024	107,712
Seeds.....	58,493	13,718	51,961	9,045
Soya products.....	215,640	9,631	229,628	10,051
Vitamins.....	2,977	11,964	3,945	16,300
Miscellaneous foods.....	2,888,493	122,376	2,483,096	124,269
Nonfoods.....	1,087,581	214,084	610,873	194,104
Total.....	13,318,902	1,936,509	13,787,260	2,094,975

SHIPPING AND STORAGE

The magnitude of OD's procurement activities and the long-range nature of the supply program for the armed forces obviously required maintenance of sizable operating inventories. In addition, the uncertainties of various requirements, such as the irregular availability of shipping space and the indefinitely anticipated needs for feeding occupied territories, required continuous reserves of food to provide for special needs. General contingency reserves of certain staple commodities like dry peas, dehydrated vegetables, dried fruits, and canned fish represented substantial percentages of the allocable supply. These general reserves are actually purchased by the Government only when this becomes necessary to assure their availability. They are over and above the specific operating reserves provided for in allocations to the individual agencies.

In periods of heavy supply certain commodities were bought in excess of current requirements in order to minimize the impact of Government purchases on civilian supply. This added to the over-all storage problem. For example, WFA and the Army jointly under-

took to concentrate their purchases of meat, dairy products, and many other foods in the season of heavy production, in order to reduce purchases or to stay out of the market entirely in the season when supplies were light. This permitted most or all the short-season production to go directly into civilian channels.

At the end of the year, OD had a working inventory of about 2 million tons, worth about 600 million dollars. Except for food purchased in fulfillment of price-support commitments, most of this reserve is earmarked for the lend-lease program. Its turn-over is at the rate of three to four times a year.

Responsibility for the receipt, storage, and transportation of all commodities purchased by OD necessitated the development of over-all shipping, storage, and delivery programs to provide for:

(1) The movement of commodities in accordance with shipping commitments and programs.

(2) The procurement of storage based upon program requirements, with the most advantageous location from the viewpoint of claimants' demands and warehouse economy and in order to make commodities available to meet immediate and urgent needs.

(3) The safekeeping of commodities in storage and in transit, namely, the maintenance of rigid controls in order to expedite delivery of commodities in good condition; the adjudication of all claims; and the establishment of vendor, warehouse, and carrier liability for lost and damaged commodities.

The storage holdings for the year ranged from 35,000 to 49,000 carloads in some 1,500 warehouses throughout the country. The operations also involved the movement of millions of tons exported through the Pacific, Atlantic, and Gulf ports for the lend-lease, Hawaiian, and Caribbean programs.

Deliveries for shipment required the handling of 6,436,000 gross tons of farm and food products. The percentage distribution to each of the shipping programs for the fiscal year was as follows: 29 percent to the Russian program; 30 percent to the United Kingdom; 19 percent to the British War Office, Dominions, Colonies; 6 percent to French Africa, North and West; 6 percent to the Caribbean program; and 10 percent for miscellaneous purposes including cash sales.

Delivery schedules were difficult to maintain because of labor shortages at ports and hazards encountered in ocean shipping. As an example of the latter, liftings under the Russian program were greatly reduced on the West coast during the last half of the year. Ships were caught in the ice and so badly damaged in breaking through that repairs to make them seaworthy meant long weeks of waiting while delivery schedules continued to lag. New shipping lanes were inaugurated, thus reducing transit time and making it possible to bring OD's shipping schedule up to date.

Approximately 22,000 loss-and-damage claims were prosecuted during the year, and recoveries from vendors, warehouses, and carriers amounted to approximately \$1,021,553.

Of 40,298,778 pounds of damaged cargoes of agricultural products handled in salvage operations, 8,365,000 pounds were redelivered to lend-lease programs; 61,632 pounds were destroyed because they were a menace to public health; 28,424,430 pounds were sold because they were unsuitable for export; and at the end of the year 3,447,716 pounds were being offered for sale. Proceeds of such sales amounted to approximately \$1,558,900.

ACCOUNTING AND CONTROLS

The year witnessed a major overhauling in methods of accounting, fiscal procedures, and attendant inventory control. Previous operating experience made changes possible. A program of fewer but more usable records was instituted and, with some modification and simplification of former systems, a far more rigid and satisfactory inventory control was achieved. During the past year the money value of the inventory has been lowered from approximately one billion dollars to less than half a billion. Concurrent with this inventory reduction was an increase in stock turn-over from two to four times per year. Very considerable savings accrued to the Government as a result of these operations and somewhat more food was made constantly available to civilian consumers without in any way tightening on necessary military and lend-lease supplies.

FOOD SUPPLY PROGRAMS

The food and other agricultural items purchased by the Office of Distribution during the year went to various foreign governments and purchasing commissions, and to governmental agencies at home requiring agricultural products from United States supplies. Receivers of these materials included the following:

United States Army, Navy, and Marine Corps.	Rubber Development Corporation.
United Kingdom (England, Scotland, Northern Ireland, and Wales).	Defense Supplies Corporation.
Union of Soviet Socialist Republics.	United States Commercial Company.
Allied Prisoners of War.	Bureau of Public Roads (Inter-American).
War Shipping Administration.	Office of Indian Affairs (Department of the Interior).
Hawaii.	Hadassah.
United States Naval Academy Dairy.	Panama Railroads.
American Red Cross.	Swedish Government.
Veterans Administration.	Evangelical Free Church of America.
Alaska.	Treasury-Procurement.
Poland.	Turkey.
Yugoslavia.	Switzerland.
North Africa, French West Africa.	War Relocation Authority.
Greece.	African Trading and Navigation Corporation.
French Colonial Supply Mission.	Iceland Purchasing Commission.
Coordinator of Inter-American Affairs (seed program).	Commodity Prices Stabilization Corporation, Ltd.
Caribbean program.	Russian War Relief.
British Colonies Supply Mission.	Canadian Red Cross.
Netherlands Purchasing Commission.	Foreign Economic Administration.
Commodity Credit Corporation.	Australia.
United Netherlands Navigation Company.	New Zealand.
Dominican Republic.	Union of South Africa.
Java Pacific Line.	British Military Services.

Food for Our Allies

Our allies were the receivers of approximately three-fourths of all OD food deliveries during the year, the United Kingdom and U. S. S. R. receiving the bulk of the supplies. The cargoes in the main included cured and frozen meats, dried eggs, evaporated milk, cheese, flour, lard, vegetable oils, and dried fruits.

Deliveries to shipside for lend-lease export to all our allies totaled 10,675 million pounds, compared with about 8,100 million pounds delivered in the 1943 fiscal year. Of this total, 5,413 million pounds

went to the United Kingdom, an increase of 74 million pounds over shipments the year before. In this way the United Kingdom was provided with roughly 10 percent of its total food supply during the year. For some commodities—among them meats, eggs, dried fruits, canned fish, dry beans and peas, and concentrated citrus juice—relatively small percentages of United States production sometimes made up more than a half of the British supply. Even more significant was the part that these lend-lease shipments played in building up by the end of the year substantial food reserves in the United Kingdom to meet allied needs.

Food deliveries to Russia, where the rich Ukraine continued under Nazi domination during much of the year, totaled 3,518 million pounds. This was an increase of 1,736 million pounds over lend-lease shipments the previous year. Food sent to Russia was used almost solely by the Russian Army and Navy.

The British Empire, the British Services, and the U. S. S. R. were provided with roughly 94 percent of our food deliveries under lend-lease. The remaining 6 percent went to other allies, including North and West Africa, Greece, the Netherlands, Poland, Yugoslavia, and the French Committee of National Liberation.

Reverse lend-lease continued throughout the year. Under this arrangement, war workers in Leeds and Edinburgh ate United States pork, while in the South Pacific our soldiers and sailors ate beef and mutton produced in New Zealand and Australia.

But for the time being, at any rate, a program had been worked out with the Department of the Interior whereby the OD made required commodities available from its own supplies when commercial concerns could not meet emergency requirements. This arrangement was to apply especially to Alaska, where all imports and shipments had been turned back to regular commercial suppliers.

Under War Food Order 74 (formerly Food Distribution Regulation 3), the OD for a time attempted, by maintaining stock piles at port of essential commodities, to supplement the purchases made by ship chandlers in order to assure to the War Shipping Administration adequate food supplies for the vessels it operated. This system of handling numerous grocery-store items where there were no alternative outlets under other OD programs caused considerable difficulty and, after several months of operating these stock piles, a new program was worked out under which set-aside or restricted foods would be made available to approved ship chandlers.

At the same time, an arrangement was made to enable the OD to make available from its stocks, supplies which the WSA could not obtain through ship suppliers who were operating under set-aside or restriction orders. Under the new system the maintenance of port stock piles was unnecessary and the OD attempted to arrange their disposition. Some of the products went into other OD programs, but because many of them had not had a regular outlet a procedure was worked out with WSA under which sales could be arranged for WSA's account.

On December 31, 1943, the Iceland Purchase Program was terminated. During the 2 years it was in operation, approximately \$65,000,000 was expended to buy fish and agricultural products in Iceland for lend-lease shipments to the United Kingdom. Under a new ar-

rangement concluded by the Department of State and the Foreign Economic Administration, Icelandic products for the United Kingdom were to be purchased entirely with British funds. After the OD's Icelandic office was closed, OD representatives assisted the Foreign Economic Administration and representatives of the British Ministry of Food in negotiations for the new contracts made on behalf of the Icelandic Government, the British Ministry of Food, and the United States Commercial Company.

During the year the Greek Relief Program was developed. Shipments during the last fiscal quarter had grown to approximately 7,500 tons a month.

Territorial Programs

During the year the OD worked with the Department of the Interior to frame procedures and policies for turning more and more commodities back to private commercial interests for shipment to Puerto Rico, the Virgin Islands, Alaska, and the Hawaiian Islands. During 1942-43 approximately 95 percent of all shipments to Hawaii were composed of commodities purchased and shipped by the OD; in 1943-44 this figure had declined by approximately 20 percent. This downward trend was expected to continue, but in case shipping conditions again deteriorated it would still be possible to revert to the previous system of assuring these islands adequate supplies through Government purchase, shipment, and distribution.

Food for Prisoners of War

During the year, under the Lend-Lease Act, we made available to the American National Red Cross more than 17½ million pounds of food in the form of prisoner-of-war packages.

The packaged food is prepared ready for eating, since it must be assumed that the prisoners of war lack facilities for preparing it. Using as a yardstick the National Research Council's recommended daily allowance of specific nutrients of a sedentary man, the Red Cross has seen to it that the food selections make up for the almost total deficiencies that occur in prison diets of protein, fats, minerals, and vitamins, with the emphasis on minerals and vitamins to prevent deficiency diseases.

United Nations Relief and Rehabilitation Administration

As the year ended, negotiations had been begun with the United Nations Relief and Rehabilitation Administration for the purchase and storage of large quantities of foodstuffs for shipment after the liberation of Nazi-occupied territory.

COMMODITY PURCHASE PROGRAMS

Cotton and Naval Stores

The OD bought baled raw cotton, cotton linters, cotton-mill waste, and naval stores for our allies under lend-lease. The materials were acquired either from stores of the Commodity Credit Corporation or, when that was not practicable, through purchases on the open market. On the open market, 69 contracts for baled raw cotton were made with 59 vendors; 12 contracts for cotton-mill waste with 11 vendors; and 5 contracts for naval stores with 3 vendors.

Approximately 556,700 bales of cotton, equivalent to about 278.5 million pounds, were bought. Of this, approximately 224,600 bales came from stocks held by the CCC and 332,400 bales came from the open market. At the year's end, approximately 165,000 bales were being acquired from CCC stocks.

The total f. o. b. cost of baled raw cotton bought for lend-lease during the fiscal year approximated 60.7 million dollars. This was about a fifth of total expenditures for baled raw cotton since lend-lease began.

Approximately 90,650 running bales of cotton linters were bought from the CCC for shipment under lend-lease. (No purchases were made on the open market.) Of this total, 1,232 running bales were for Turkey, and 89,416 were for the United Kingdom.

Linters for the United Kingdom, second-cut and mill run, were intended for the production of rayon, explosives, plastics, paper, and sundries. They supplemented linters supplies purchased by the United Kingdom from Brazil.

Approximately 6,531,000 pounds of cotton-mill waste were bought on the open market for the United Kingdom.

Naval stores purchases for lend-lease during the year were for shipments to six countries. These purchases included six types of products totaling about 60.8 million pounds and valued at approximately 2.2 million dollars. Approximately 46.5 million pounds, or 76 percent of the total volume, were purchased for the United Kingdom, and about 12.8 million pounds, or 21 percent, for Australia. The remainder, about 1.6 million pounds, was bought for New Zealand, North Africa, and French West Africa.

Naval stores purchases came from both CCC stocks and the open market. All gum rosin and gum turpentine came from the CCC, and the wood rosin and various turpentine and rosin derivatives came from the open market on the basis of offers and acceptances. Purchases from the CCC totaled about 59 million pounds, worth about 2.1 million dollars.

Dairy Products

OD purchases of dairy products included 90 million pounds of butter, 261 million pounds of cheese, 12 million cases of evaporated milk, 2 million cases of sweetened condensed milk, 274 million pounds of nonfat dry milk solids, and 38 million pounds of dried whole milk, at a total value of 185 million dollars.

Butter and natural Cheddar cheese purchases for OD were made largely through the Dairy Products Marketing Association. Other products were purchased directly from the markets by the OD.

The purchases were made largely by accepting offers from manufacturers, receivers, assemblers, and processors in carlots. For most of the products, the largest purchases were made under set-aside orders during the summer months of heavy production according to the plan under which Government agencies procured seasonally so as to encourage a reasonably steady flow of supplies into civilian outlets throughout the year. This involved storage of supplies during the summer months to help meet winter war requirements.

Difficulties of maintaining total milk supplies became increasingly evident during the year. Steps were taken to increase returns to farmers to help them overcome the increasing shortages and costs of

labor, equipment, and feeds. Following earlier price-support announcements, WFA announced in March 1944 that during the remainder of the calendar year returns to producers would be supported at levels of not less than 30 cents a hundred pounds of whole milk or 4 cents a pound of butterfat above the returns reflected by the following prices for butter, cheese, and nonfat dry milk solids: Butter, U. S. Grade A, 46 cents a pound, Chicago basis; Cheddar cheese, U. S. Grade A, 27 cents a pound, Wisconsin basis; and nonfat dry milk solids, U. S. Extra Grade, spray 14½ cents and roller 12½ cents a pound, f. o. b. Midwest plant basis.

As a part of the program to increase returns to producers, on recommendation of the OD the OPA raised the price ceilings on roller-processed nonfat dry milk solids from 12½ to 14 cents a pound.

A combination of support programs was in effect during the year. The programs included: Purchases at ceiling prices of dairy products by the OD and other Government procurement agencies for war services, lend-lease, and similar uses; payments to cheese factories on Cheddar cheese production, for distribution to milk producers; payments on fluid milk to handlers at certain markets to enable them to raise prices to producers without increasing prices to consumers; production payments to producers on milk and butterfat;¹ and Federal orders requiring handlers to pay not less than specified minimum prices for milk in certain milk-marketing areas.

Eggs

During the first few months of the fiscal year eggs were in short supply for commercial distribution owing to their being channeled to drying plants and to the armed forces by two food orders—FDO 40 and 41. Governmental needs were completed by October 1943 and the orders were terminated at that time.

The number of laying hens was high during the winter, and weather conditions were favorable for a high rate of production. The egg market dropped rapidly in December. OD began to purchase in carlot quantities in the Northeast about January 1, under Section 32 funds, acquiring in all 154,199 cases. Other purchases with Section 32 funds were made in the Southeast and Southwest under a special less-than-carlot program.

The dried-egg purchase program is an important part of the egg price-support program. When egg prices fell in December 1943, dried-egg purchases were promptly resumed. A purchase program for 185,000,000 pounds was announced for the 1944 season, and by the end of June 176,252,590 pounds had been purchased for current and future deliveries. This was the equivalent of about 17,625,000 cases of shell eggs.

When egg production continued at high levels, a general-commodities purchase program for the purchase of graded eggs in carlots was started. During the season two other features were added: (1) Current receipt (ungraded) eggs were purchased through agency buyers; (2) purchases of both current-receipt and graded eggs were

¹ Following the roll-back butter prices in early June 1943, the Defense Supplies Corporation of the Reconstruction Finance Corporation also made payments to creameries of 5 cents a pound for butter produced.

made through agents on the Chicago and New York Mercantile Exchanges.

Three difficulties occurred in the mechanics of the program: (1) Candling and grading labor was limited, and OD was forced into the purchase of current receipt eggs; (2) cases and packing supplies were short, necessitating the use of second-hand materials; (3) there was not enough storage space.

The storage-space situation became so critical in June that some eggs were diverted into dry storage for temporary holding, and about 180,000 cases out of a total of approximately 5,500,000 cases purchased were diverted into animal feed by rendering plants and large hog feeders.

About 76 contracts were signed for the conversion of shell eggs into frozen eggs. At the time, more freezer space than cooler space was available, and frozen eggs occupy much less space in a warehouse than shell eggs.

Shell-egg purchases under the various programs from January 1 to June 30, 1944, were 5,500,000 cases according to preliminary figures. These purchases are about equivalent to the amount of increases by producers over the requested goals. Without OD market support at about 90 percent of parity, it was estimated in the trade that producer prices would have been lower by 10 to 15 cents a dozen.

The egg-production picture changed rapidly during June, and by the month's end about half of the current receipt eggs bought by OD had been sold back to processing plants and were on order for prompt shipment to such outlets or had been converted into frozen eggs. After reinspection, the lower grades of the graded eggs were to be processed and the better grades held until the fall and early winter for sale to the trade.

Fruits and Vegetables

During the year approximately \$910,000 of Section 32 funds, not including transportation and distribution costs, were used for the purchase of fresh vegetables. Of this, about \$733,000 went for purchases in commercial areas and the rest for market-garden produce in the Northeastern States.

These purchases totaled almost 50 million pounds of vegetables. Largest purchases were of carrots, mainly in Texas, California, and Pennsylvania; cabbage, mainly in Texas and Florida; and beets, mainly in Texas and Pennsylvania. Other fresh vegetables purchased were snap beans, onions, spinach, and lima beans, in purchase areas including Texas, Florida, California, Arizona, Washington, Oregon, Georgia, South Carolina, North Carolina, Mississippi, Louisiana, Oklahoma, Virginia, Maryland, Pennsylvania, New York, Connecticut, and Maine.

On August 24, 1943, new support prices were announced on cured sweetpotatoes at \$1.50 a bushel for U. S. No. 1 grade during January 1944, and afterward at \$1.65 a bushel. For sweetpotatoes cured or uncured the price of \$1.15 a bushel through November 30 and \$1.30 through December remained unchanged. Purchases under the support program were unnecessary because prices were generally above support levels.

The OD administered the program, announced in March 1943 by the Commodity Credit Corporation, under which the Government bought specified raw vegetables for processing from processors and resold them at a loss in order to prevent a price-ceiling increase for the processed vegetables sold to civilians. Vegetables included were snap beans, sweet corn, green peas, and tomatoes used for canning, freezing, and brining. Payments made during the year totaled \$20,-951,667.81.

Under four purchase programs the OD during the year paid \$12,-903,742² for 12,913,290 bushels of Irish potatoes.

At the beginning of the 1943-44 marketing season WFA announced grower support prices for California and Northwest dried prunes. Because field prices which packers paid equaled the announced support prices, OD bought no natural-condition fruit. Of dried prunes, OD bought approximately 45,700 tons.

Other OD fruit purchases during the year included 7,125 tons of dried apples, 1,100 tons of dried apricots, 2,350 tons of dried pears, and 4,225 tons of packed processed peaches.

Approximately 125 million dollars was spent for grain and grain products, rice, beans, peas, and seeds to be used as food, feed, or seed for lend-lease, foreign relief, or for the Army, Navy, our Territories, the American Red Cross, or foreign governments.

Meat

Purchases of meat were made at Chicago in order to coordinate OD procurement closely with that of the armed forces. Chicago is the nerve center of the packing industry, and at that point temporary surpluses and shortages could be sensed quickly and procurement adjusted accordingly.

Through the cooperation of the packing industry, the War Meat Board, composed of seven industry and five Government men, including representatives of OD and of the United States armed forces, has been able to determine meat production on a day-to-day and week-to-week basis. From this information adjustments in procurement could be made to coincide with the current supply.

Advantage was taken of the liberal meat supplies during December 1943 and January and February 1944, when nearly 40 percent of frozen-pork requirements and 54 percent of cured-pork requirements for the entire year were purchased.

Purchases of lard were drastically curtailed during August, September, and October 1943 because the supply of edible fats was then short. The policy behind this kind of purchasing resulted in a more even distribution of meats and meat products for civilians throughout the year than would have prevailed without it.

During the last fiscal quarter, a reduction in the quantities of meat products purchased resulted from an overloading of meat-storage facilities and a curtailment in the shipping program for reasons beyond OD's control.

Purchases of meat and meat products during the fiscal year, in thousands of pounds, were as follows: Frozen pork, 673,587; cured pork, 480,503; frozen and cured beef and veal, 63,975; frozen lamb and mutton, 104,095; canned meats, 598,368; lard, 1,132,429; tallow, oleo

² Includes estimated transportation costs for potatoes bought under the general commodities purchase program.

oil and stock, and beef suet, 528; dried sausage, 329; hog casings, 5,076 (thousand bundles). Estimated f. o. b. procurement cost of these products was 670 million dollars.

IMPORTS

The OD administered that part of General Importation Order M-63 of the War Production Board which refers to the importation of foodstuffs for the account of established private import organizations. (See also Sugar.) During the year it handled some 24,000 applications from importers. At the end of the year 182 food products or groups of products were controlled by this order for which a prior written authorization was required before an import transaction might be initiated.

Commodity specialists constantly studied the supply situation in foreign countries and indicated the shipping requirements necessary for moving these supplies to the United States. The OD performed the functions of the Foreign Commodity Division of Commodity Credit Corporation except for actual purchase of food in foreign countries, which was performed after January 1, 1944, by the Foreign Economic Administration. At the year's close, 16 directives for the purchase of foreign-produced food commodities had been issued to FEA, representing 150,000 long tons, with an approximate value of 25 million dollars.

In the importation of fats and oils, the chief and continuing import problem was to obtain supplies and shipping space for enough imported oils and oil-bearing materials to satisfy the requirements of the armed forces and lend-lease, and essential needs of United States civilians. This was particularly true for castor oil, palm oil, rapeseed oil, and high lauric acid oils, for which there are no domestically produced replacements. The Office of Distribution was able to import enough palm and rapeseed oil to supply the all-important steel and marine lubricating oil industries with full requirements. Imports of castor beans were increased during the year to a point where it was safe to revoke WFO 32, which had restricted use of castor oil. Importation of copra and coconut oil declined because copra was short in Ceylon.

Together with the War Shipping Administration and the War Production Board, OD handled the monthly scheduling of agricultural commodities under yearly quotas established in cooperation with these two agencies. Thus the flow of some 500,000 tons a month of food commodities in addition to some 350,000 tons of sugar was arranged.

Increased livestock and poultry production caused such shortages of protein for animal feed that it became necessary to import protein materials in order to maintain efficient feeding practices. Private importers of record, granted licenses under General Importation Order M-63, were required to sell imported protein materials to designated meat-scrap manufacturers, who in turn were required to distribute the finished product in the areas of greatest need. As a result, meat scraps could be supplied throughout the country at equitable prices. About a million tons of animal protein materials were imported and distributed under the program.

Four permits were issued to cover importation from Canada of wheat and wheat flour for experimental use, and 14 were issued for seed wheat for planting.

SALES

At the beginning of the year it was necessary not only to buy sufficient food for current needs, but also to build up essential reserves both at home and abroad. Adequate reserves for meeting all foreseeable requirements were built. During the year, therefore, the procurement job became one of maintenance and replenishment.

This favorable supply situation, along with successes on the war fronts, brought with it the necessity of making definite plans for disposing of Government-owned foods that might be accumulated over and above foreseeable requirements or that might be on hand at the end of the war. This matter was of major concern not only to farmers and the food trade but to the Government as well, because more than likely food producers and processors would be unwilling to continue heavy production if they feared that food surpluses might be so handled as to demoralize their markets. It was recognized that in the absence of such assurance, fruit and vegetable growers, for example, would naturally be reluctant to enter into extended contracts because of the feeling that such contracts are subject to cancelation or amendment, and canners would hesitate to prepare a year's pack because of the threat of heavy competition.

In May 1944 the Office of Distribution was given the responsibility of disposing of all Government-owned foodstocks and related agricultural products not needed to meet the requirements of United States military forces or for other war purposes. These foodstocks include not only those no longer needed for war uses, but also those released from reserves in the process of turning stocks and commodities purchased to support producer prices. Because of this responsibility, a sales policy was developed to give necessary assurances to producers and processors.

It was considered improbable that any single procedure could be devised to cover all food sales. The nature and quantity of the commodity, its location and condition, and the state of the market were recognized as factors to be considered in determining which one of several methods of disposition should be employed. Certain general principles, however, were decided upon:

(1) Whenever practicable, first option shall be given to the original vendor of the particular lot of foodstuffs being offered for sale, or the owner of the brand under which the food may be packed.

(2) Lots shall be released of such size that existing operators in the food trade can effectively bid for them.

(3) Precaution shall be taken to assure receipt of fair market values, thereby discouraging speculative buying made in the hope of scoring a "killing" at the taxpayers' expense.

(4) Existing trade channels shall be used for as much of the disposition as is practicable.

(5) Returns to the Treasury shall be as high as possible consistent with maintaining sufficient stability in the market to assure future production.

The program for carrying out these principles was being developed at the end of the year. It had as its objectives the prompt and orderly

movement of the food into civilian trade channels, the avoidance of disruption to established markets, protection of the Government's investment in the food, and adequate information to all interested food-trade factors and the public.

It was not, however, as if OD had not had experience in such sales activities, because during the past year about 362,468,000 pounds of food was sold for slightly more than \$24,204,000. These sales consisted in part of out-of-condition products that could not be offered in their present form for sale into civilian trade channels. Other sales consisted of small lots or out-of-position lots, of commodities to be replaced by newly packed or processed foods, and of products bought to support producer prices. Of the aggregate sales, more than 60 percent (sales value) of them were handled during the last 2 months of the fiscal year. The sales value of commodities sold in May and June totaled \$15,129,442. Of this total, however, \$11,379,603 was received from the sale of shell eggs purchased earlier in the year to support farm prices.

In the case of certain foods, such as potatoes and eggs purchased under the price-support program, an offer of sale back to the original producer is obviously out of the question. If supplies of such foods can be sold to the trade at a fair price—a price that won't break the market—that is done. If supplies are in excess of market demands, some of these foods are diverted to school lunches, public-welfare programs, and to industrial uses. Other quantities are held and offered for sale to the trade later when needed to meet seasonal or other deficiencies in the supply.

To handle sales of Government-owned foods, a Sales Division was established late in the year as a part of the Procurement and Price Support Branch. While the sales job for the next several months will be one of selling during a period of relatively short supply, it is recognized that the problem will be far greater in months to come when the size of such sales increase and when certain items of foods may become in surplus. The groundwork for the larger task ahead, however, is now being laid.

MARKETING FACILITIES

Problems that arose in the physical movement of farm and food products from farm to consumer required programs and action in the planning of concentration or assembly markets in production areas; in facilitating transportation of products from the farm to consumer by rail, truck, and boat; in the storage of commodities; and in the development and operation of terminal and secondary markets in the consuming areas. OD's concern was the handling of all food produced and consumed in the United States. The goal was to make the physical distribution of farm products as efficient as possible.

The specific tasks were many and varied. Proper locations, designs, and methods of operation had to be determined for all kinds of market facilities in producing areas and in the large cities. This involved work with farm and trade groups, city and State officials, and transportation, real estate, and banking interests. It required a knowledge of marketing of all farm products, because the purpose of creating a market is not simply its physical construction but also the

provision of an efficient method of handling commodities. Engineering plans are drawn up to fit marketing methods and streamline handling methods. During the fiscal year 1944, detailed plans were worked out for several markets. These plans envisioned construction of facilities costing from a few thousand dollars to several million.

STORAGE-SPACE PROBLEMS

Not only were market facilities inadequate in 1944, but there were shortages of storage space also. Elaborate programs were necessary in order to make possible the storage of grains and perishable foods. Grain-storage committees functioned throughout the country for the fourth consecutive year. Cold-storage holdings increased much more than the production of perishable foods; yet it was impossible to obtain the materials for constructing enough additional cold-storage warehouses to take care of the food. Existing facilities had to do the job with little expansion.

In a Nation-wide campaign, all warehousemen were urged to utilize their space more efficiently, and specific suggestions were made on how this could be done. All products not requiring refrigeration were forced out of the cold-storage warehouse. Stocks of other commodities were ordered reduced. The storage period was limited to a maximum of 10 months. Much warehouse space was made convertible from "cooler" to "freezer" space. New warehouses were built in critical areas, and a service was set up to inform food handlers throughout the country of all available storage space. Two food orders—WFO's 70 and 90—regulating the use of cold-storage facilities were in effect, and they were expanded from time to time by amendment. In meeting these problems, the OD had the constant advice of a Refrigerated Warehousing Industry Advisory Committee composed of leaders of the industry from every section of the country.

Many special services were arranged to expedite handling of farm products. For example, when difficulties arose in storing the tremendous crop of Maine potatoes, arrangements were made to store them in transit at almost any point east of the Mississippi River. This meant that warehouses which had never been used for potato storage could be so used during the emergency. The result was a saving not only in the potatoes but also the labor and materials that would have gone into the construction of new warehouses for storing the potatoes.

A purely wartime activity that assumed major importance during the year was the handling of priorities and tax amortization of refrigerated warehouses, ice-manufacturing plants, and car-icing stations. Several hundred applications were processed. Because of the scarcity of materials, the applications had to be analyzed and the engineering plans scanned carefully to eliminate from each proposal as much critical material as possible and to make certain that each expansion was of the type and in the location that would do the most good.

A Nation-wide survey was made of cooler and freezer capacity. Twice a month information was obtained from each warehouse as to the amount of space occupied. Each month the holdings of each commodity in cold storage warehouses were published.

UNITED STATES WAREHOUSE ACT

The year brought continued growth of the work under the United States Warehouse Act. With the tremendous wartime food and fiber requirements and the limited production resulting from shortages of materials and labor, adequate protection of storage stocks became more important than ever. The warehouses supervised under the United States Warehouse Act handled more than a billion-and-a-half dollars' worth of farm products without financial loss to any depositor of any product in any warehouse.

TABLE 4.—*Storage capacity licensed under the U. S. Warehouse Act, by commodities, 1943-44*

Commodity	Unit	Licensed capacity June 30, 1943	Licensed capacity June 30, 1944
Cotton.....	Bale.....	10, 387, 853	10, 648, 785
Grain.....	Bushel.....	257, 696, 314	260, 501, 904
Wool.....	Pound.....	50, 138, 710	78, 706, 700
Tobacco.....	Pound.....	148, 578, 900	116, 150, 000
Nuts.....	Ton.....	27, 000	19, 800
Broomcorn.....	Bale.....	14, 500	16, 750
Beans.....	100 pounds.....	925, 050	1, 624, 650
Sirup.....	Gallon.....	747, 240	642, 640
Dried fruit.....	Pound.....	2, 922, 000	
Cold-pack fruit.....	Pound.....	6, 313, 950	6, 313, 950
Canned foods.....	Case.....	3, 665, 506	3, 575, 900
Seeds.....	100 pounds.....	693, 302	492, 187
Cherries in brine.....	Pound.....	12, 071, 043	7, 769, 000

TRANSPORTATION

In transportation, problems had to be dealt with that have not existed for a quarter of a century—those resulting from not enough transportation equipment to move the country's production. Studies were made to forecast the demand for various kinds of equipment and the shortages anticipated, and action was taken to prevent occurrence of the problem or to have the solution ready when it appeared. The general approach was to conserve existing equipment and use alternative equipment. When the method of making the best of what was at hand failed, priorities were established for the movement of commodities.

Shortly after the year began, it became necessary to prepare priorities on the use of trucks because of gasoline shortages in the East. Later, these priorities were extended to other areas in order that the most necessary trucks might get tires, parts, and gasoline. To conserve existing truck equipment, the OD worked constantly with the War Production Board and the Office of Defense Transportation in developing regulations concerning the distances trucks might travel and the number of deliveries they might make.

In the field of rail transportation, the shortage of refrigerator cars was the most serious problem. Though food production had increased tremendously and though during wartime there had been shifts from trucks to the rails, fewer refrigerator cars were in use in 1944 than before the war, owing to the fact that worn-out equipment could not be replaced. During at least half the year there would not have been enough refrigerator cars to meet demand unless action had been taken in advance to prevent such an emergency.

Yet no product spoiled because of the lack of cars, and work of the OD with the Interstate Commerce Commission, the Office of Defense Transportation, the refrigerator-car lines' advisory committees, and the industries which moved perishable commodities met the situation.

A campaign was conducted to get shippers to load and unload cars more promptly. Certain products that did not require refrigerator-car protection were forced to move in boxcars. Restrictions were placed on diversions and the length of time cars could be held, and other steps were taken to improve operating efficiency and insure that all necessary demands for refrigerator cars were met before such cars were used for hauling nonperishables.

Tank-car shortages required action to make sure that enough were available to move the fats and oils. Conservation measures were adopted, tank-car movements were watched, and the Office of Distribution worked with the Office of Defense Transportation in managing car allocations to meet all needs. Some local temporary shortages of boxcars also required action.

Boat shortages also caused trouble. During the 1943 season it was very difficult to get grain into this country, but even with limited shipping facilities and the great demand for ships to haul ore, more grain was brought in than had moved on the Great Lakes during the previous season.

At the request of the Director of ODT the OD carried on with each major segment of the food industry an extensive program of transportation conservation. As a result, millions of railroad ton-miles were saved.

The OD acted as a claimant agency of the War Food Administration before ODT and the War Production Board for all transportation of farm and food products. It also represented WFA in dealings with the Interstate Commerce Commission, the Office of Price Administration, and the Association of American Railroads. During the year, rate actions in which OD participated resulted in annual savings of about \$100,000,000 in charges for transporting farm and food products.

Actions taken benefited every farm product, and farmers and consumers in each State were assisted by several separate rate adjustments. Actions completed ranged from reductions in rates on particular commodities between specified points to adjustments that covered the entire country on groups of commodities, and they embraced not only charges made by the railroads but those made by truck and boat transportation companies as well.

Each proposed abandonment of railway lines was studied to see whether the abandonment, if granted, would be detrimental to the handling of farm products.

The OD was active in obtaining satisfactory rates for the return of used fruit and vegetable containers to producing areas.

Several research projects were undertaken to improve the transportation service. An example is the studies made to determine the most satisfactory methods of transporting meat in refrigerator cars. Tests were made by moving meat in various kinds of cars containing varying amounts of ice and salt.

As a result, it was possible to determine which type of refrigeration equipment would best maintain low temperatures. By using the best

method, meat was moved directly to shipside from interior points without being refrozen at port warehouses. Besides moving more meat through the ports, several hundred thousand dollars a month was saved through elimination of the extra handling.

Elaborate tests were run on a large number of products to determine their freezing point and the time required for freezing when they stood still and when they were in motion. The purpose was to determine which products can be moved safely in boxcars, and during which months of the year refrigerator cars are needed to protect commodities from freezing. The results of the tests were very helpful in coping with refrigerator car shortages.

COOPERATION WITH THE FOOD INDUSTRY

INDUSTRY ADVISORY COMMITTEES

The procedure was continued of solving through national industry advisory committees the joint problems that Government and industry face in the war food program. During the year the number of such committees grew from 69 to 111. In functioning in an advisory capacity and in supplying information and making recommendations, the committees are most helpful to the Government in working out the kinds of regulatory controls that accomplish desired ends without placing an unnecessary burden upon the industries affected.

They serve OD especially well through direct contact with their industries with respect to the issuance of War Food Orders or amendments to the orders. OD, in turn, is able to assist in solving for these industries problems of manpower, transportation, prices, maintenance and repairs, and operating supplies. Arrangements have been worked out between the Office of Distribution and the Office of Price Administration whereby the same industry advisers serve both agencies.

FINANCING OF PROCESSING PLANTS

With the increased needs for certain foods, more plants in which to produce them were required. Although most of these were financed with private capital, commercial financing has not always been available. For that reason OD continued during the year a modified program for financing the construction of new plants in areas where the commodities were available and where the plants could be operated efficiently.

Funds furnished by the Office of Lend-Lease Administration for such construction and acquisition through June 30, 1944, totaled \$17,499,000. Of this amount \$12,286,266.50 had been allotted for the construction of 55 processing plants, as follows: Nonfat dry milk solids, 25; cheese, 1; dehydrated vegetables, 9; dehydrated raisins, 17; dehydrated apples, 1; and citrus concentrates, 2.

If the proposed plant or project is found by the OD to be essential to the war food program, it is thoroughly studied from such angles as location, availability of supplies, productive capacity, type of construction, conservation of material, and efficiency and experience of proposed management. Lend-lease financing of the projects is undertaken only after investigation discloses that construction of the plant through private or commercial financing would be impracticable.

If satisfactory from all standpoints, the project is approved and funds are allotted to cover the estimated cost, while the priorities necessary to build are recommended to the War Production Board. As soon as the preference rating order is issued, the applicant proceeds with construction. Title is taken and payment made by the Government upon completion. Meanwhile, an agreement is drawn between the applicant and the War Food Administration whereby the applicant leases the facility upon its completion for a sufficient length of time—5 to 10 years—to permit reimbursement of the total consideration.

As the fiscal year ended, the Government expansion of food processing appeared to be about completed. The majority of the facilities were in satisfactory operation, and the remainder were in various stages of construction.

Fluctuations in requirements affect plant operation. For example, it is believed that the capacity production of the dry-milk plants in the country will be needed until the war ends and after. Among dehydrated fruits and vegetables, onions were in increasing demand, whereas other vegetable requirements were not increasing. The 17 raisin plants financed under lend-lease may not be needed fully during 1945. Certain lessees were installing equipment at their own expense to dry other fruits. The current demand for citrus concentrate did not fully utilize lend-lease equipment. Despite fluctuations, however, all plants at the close of the year were meeting their war requirements, operating satisfactorily, and keeping rent payments current.

WFA ACHIEVEMENT "A" AWARD

WFA has established an Achievement "A" award to bestow upon food-processing plants whose production record merits high honors. The "A" award is represented by a flag which is flown above the honored plant. Every food-processing plant that meets the prescribed requirements—large or small, seasonal or year-round—is eligible to compete. Standards to be met by food processors in winning the award are comparable with those required for the Army-Navy "E." Each of the two is paramount in its own field.

The "A" award is granted, on a yearly basis, only to food processors who meet rigid requirements of quality and quantity in production. Outstanding requirements are efficient utilization of existing facilities for wartime production; ingenuity and cooperation with Government in developing and producing war-food products; cooperation with the intents and purposes of the food-purchase programs; effective management; overcoming of production obstacles; satisfactory management-labor relations, including avoidance of stoppages; training of additional labor forces; low absentee records; accident prevention; and health and sanitation.

Nominations for this award and production incentive are originated by regional directors of the OD or by its commodity branches. However, any employee of WFA or of the United States Department of Agriculture may propose the nomination of a food processor through the foregoing channels.

During the year 133 awards were made and in most cases presentation of the award flag was made at public ceremony attended by representatives of the OD and the Army or Navy. The War and

Navy Departments wish a part in the ceremony in order to bring home to workers and managers the importance of food in the war program and the armed services' appreciation of the plant's accomplishments.

MARKETING SERVICES AND REGULATION

Standards for most agricultural products have been formulated during a period of many years by the United States Department of Agriculture and more recently by WFA's Office of Distribution. Use of some of the standards is required if the product is shipped in interstate or foreign commerce or is contracted for future delivery. For most farm products, however, the standards are not required, but they are used voluntarily and widely as quality guides. They are a uniform basis for price quotations, loans on warehoused products, the regulation or control of shipments under marketing agreements and Federal procurement.

To be effective in marketing, standards must be uniformly applied. A buyer must be able to know what he is buying, no matter where the product is located. Federal and Federal-State inspectors, graders, and classers have the job of applying the Federal standards uniformly. These experts use training, experience, and scientific equipment in evaluating the slight variations of color, length, flavor, and the like, which are all-important factors in grading.

During the year, the national manpower shortage made it increasingly difficult to fill the positions left open by graders, inspectors, and classers who entered the armed services or other occupations.

The Office of Distribution administers a number of regulatory statutes which maintain and develop honest marketing practices. Strict enforcement, always necessary in maintaining the confidence of producers, processors, and distributors, has been even more important under the wartime food program. Some 25 regulatory statutes were administered during the year, including the Agricultural Marketing Act, the Commodity Exchange Act, the Perishable Agricultural Commodities Act, the Produce Agency Act, the Packers and Stockyards Act, the Cotton Futures Act, the Federal Seed Act, the Insecticide Act, the Naval Stores Act, and the Standard Container Acts.

The effectiveness of OD marketing programs is appraised constantly, with results pointing the way to adjustments and improvements. In addition, research specialists continually examine such diverse marketing factors as the most economical location of a cotton gin, the probable effect of an increase in freight rates, and the precise determination of color in fruit. Such work provides the basis for developing and maintaining a more efficient marketing system.

Marketing statistics reflect transactions on the principal markets, the transportation and storage of agricultural products, receiving-market prices, and the like. Such data are even more important to orderly marketing now than in peacetime.

In a Nation-wide system of marketing, a market news service is essential. The OD reports the prices, supplies, and movement of more than 100 farm commodities. The market reporter mingles with the traders, notes the quality of the product, observes the bid and asking

prices, correlates data on shipments and arrivals. He is able to compare the price and supply situations at points throughout the Nation by the use of a leased telegraph system approximately 8,500 miles long.

Offices in the terminal markets and producing sections issue daily reports that are mailed to thousands of interested persons. Newspapers reprint the reports, and more than half of the country's radio stations broadcast market reports at least once daily.

Officials and commodity specialists make frequent addresses to clarify policy. Press releases announce the beginning or suspension of programs and other current developments. The radio and printed and processed publications are used to disseminate general marketing and food-distribution information that is needed by farmers, food processors, and the public.

COMMODITY PROGRAMS

The war food-management programs vary in their application to the different groups of commodities. The nine commodity branches of the Office of Distribution handle work connected with food orders, standardization, inspection and grading, regulation, marketing agreements, diversion, marketing research, marketing statistics and supply information, market news, and other matters.

A detailed discussion of the special problems that arose during the year within each commodity group is basic to a full understanding of OD activities. Such an account is given in the remainder of this report.

COTTON, FIBER, AND NAVAL STORES

Total supply of upland cotton during the 1943-44 marketing season was about as large as during the previous season. The 1943-44 supply, including carry-over and production, was 21,599,000 running bales, compared with a supply of 22,838,000 bales the year before. At no time during the fiscal year was cotton distribution complicated by serious shortages and there were no "food" orders covering its distribution.

STANDARDIZATION

On July 15, 1943, the New York Cotton Exchange adopted a new cotton futures contract which provides that the receiver shall "pay the deliverer for 7 pounds at the average invoice price on every bale covered with cotton bagging which conforms to the U. S. Department of Agriculture's standards. * * * but high-density cotton or cotton which previously has been compressed to high density shall not be delivered on any new contract instituted for trading beginning with the month of August 1943."

Although this contract does not go so far as some had advocated, it does include desirable new features. The cotton delivered will be more acceptable to American mills, the allowable tare is reduced by about 5½ pounds per bale, and reasonable provision is made for the delivery on contract of bales covered with cotton bagging of lighter weights than the jute baggings ordinarily used.

Provision was made for inaugurating trading in the new contract beginning August 2, 1943, for deliveries in 1943 and later. Trading

was to be continued simultaneously in both the old and new contracts, through July 1944, but all the old contracts were to be liquidated that month.

The official rosin standards have been maintained in good condition. Thirty-one sets were called in from the loan depositories, serviced, and returned for use. Seven sets were issued on loan to new depositories for use in grading rosin, both at stills and consumer-purchaser plants.

In connection with a revision of the generally accepted standard test methods for turpentine, a commercial grade long known as Waterwhite is being defined for the first time. Suitable color standards for this grade were studied and are being described. Working standards for the two commercial grades known as Waterwhite and Standard have been prepared and supplied to the field inspectors of naval stores.

In collaboration with the Committee on Naval Stores of the American Society for Testing Materials, a wide variety of methods of analysis and tests of many naval stores products were studied. Also studied were: Methods for determining the total terpene alcohol content of pine oil; methods for determining the acid and saponification numbers of dark-colored rosins, which give solutions so dark-colored that it is difficult or impossible to tell when an end point has been reached in the titration or measured addition of the neutralizing solution; methods for determining the unsaponifiable matter in rosin.

Other general analytical and test methods which received collaborative attention included those applicable to pine oil, tall oil, dipentene, pine tars, and rosin oil. Methods covering the first three commodities have been developed to the point where they can be recommended for adoption as tentative standard methods of the American Society for Testing Materials.

During the year 108 copies of the standards for hemp line and tow were distributed. The color and certain other characteristics of recent hemp crops have differed so much from the present standards that revision of the standards is advisable. However, since the Commodity Credit Corporation had already established prices for 1944 fiber according to standards now in force, it was decided that the revision should apply not to it but to 1945 fiber. Standards for hemp line and tow were promulgated September 25, 1942, and these were used in the CCC's hemp programs under which some 169,000 acres were grown on contract in 1943.

CLASSIFICATION AND INSPECTION

Distribution of the standards for the grade of American cotton and linters totaled 2,300, as compared with 3,112 boxes in 1943; and the staple types distributed totaled 6,259, as compared with 10,656 in 1943.

Under the Cotton Futures Act, as amended, all cotton delivered in settlement of futures contracts must be classed by employees of the Government. During the year the boards of cotton examiners of the Office of Distribution at future delivery points continued to provide this service. Table 5 gives the details of this classification service, as well as those for cotton classed under the U. S. Cotton Standards Act and other legislation.

TABLE 5.—*Cotton classification activities under different laws*

[Not including samples classed for supervision purposes]

Item	Samples classified during fiscal year—		
	1942	1943	1944
Cotton Futures Act:	<i>Number</i>	<i>Number</i>	<i>Number</i>
Original certifications.....	118, 571	36, 441	17, 041
Reviews.....	40, 500	15, 203	9, 012
Cotton Standards Act: Public classing service and miscellaneous....	147, 676	349, 493	337, 181
Commodity Credit Corporation:			
Loan cotton.....	1, 005, 224	1, 228, 647	1, 632, 910
Sales program, etc.....	578, 667	354, 018	87, 088
Federal Surplus Commodities Corporation (formerly referred to as Purchase Branch, AMA).....	24, 980	661, 244	321, 041
Federal Penitentiary, Atlanta, Ga.....	25, 847	26, 098	13, 105
Smith-Doxey Act of Apr. 13, 1937.....	¹ 2, 519, 788	¹ 3, 567, 095	¹ 3, 350, 622
Grade and Staple Statistics Act.....	423, 538	565, 637	516, 264
Total classed by employes of Office of Distribution.....	4, 884, 791	6, 803, 876	6, 284, 264
Reported classed by licensed classers under Cotton Standards Act....	² 9, 179, 461	² 7, 028, 218	² 8, 863, 216
Grand total.....	14, 064, 252	13, 832, 094	15, 147, 480

¹ Classifications under this act have been acceptable as a basis for Commodity Credit Corporation loans.² These figures include ordinary bale-by-bale classifications, samples classed in assembling cotton into even-running lots, and classifications of cotton previously assembled into even-running lots.

Again an outstanding feature this year was the classification of samples representing 1,632,910 bales of Commodity Credit Corporation loan cotton from the 1943 crop. This work was done pursuant to a continuing arrangement between the CCC and the OD. Similar classifications for members of organized cotton-improvement groups under the Smith-Doxey Act totaled 3,350,622.

Licenses to qualified classers, including renewals, issued during the year, totaled 528, compared with 630 last year.

On August 24, 1943, Commodity Credit Corporation offered cottonseed processors the same contract enforced last year except as to the support prices of cottonseed and cottonseed products. All mills accepting the offer were required to follow the terms and conditions it set out. Mills located in the areas that followed grading of cottonseed under Government standards during the 1942-43 season, with few exceptions, contracted with the Commodity Credit Corporation agreeing to purchase cottonseed on the basis of official grades.

During the year, 625 qualified persons were licensed as cottonseed samplers and stationed at 378 oil mills and seed-purchasing points. The licensed samplers drew 147,121 samples representing approximately 3,700,000 tons of cottonseed.

From August 1943 through June 1944, 164 appeals for official re-analyses were received—considerably fewer than were requested last year. Appeals were called on 16 of the 24 licensed chemists. Of the 164 appeals requested, the original grades were sustained in 96 cases, changed in 68.

Although the War Production Board allocated the entire crop of linters produced during the 1942-43 season to war-consumption channels, it was found near the end of that season that the stock pile that had accumulated was sufficient to permit release of a part of the 1943-44 crop to the regular trade for commercial purposes.

As the season began, the WPB, in allocating the 1943-44 linters crop, required each cottonseed crushing mill to deliver, for war purposes, linters equivalent to 65 percent of its 1942-43 production per ton of cottonseed processed.

In addition, the WPB directed the cottonseed crushing mills to send the Board of Cotton Linters Examiners samples of their current weekly production for advice on its suitability for war purposes. Data for the 1943-44 season are not yet available, but WPB gave advice on 6,517 samples submitted by the crushing mills, and the chief purchasing agent for the largest chemical processor of linters informed the Board of Cotton Linters Examiners that as a result of the board's advice the linters consumed by that processor averaged the highest cellulose content of all the crops it had ever handled.

The Board of Cotton Linters Examiners issued 888 memoranda covering the classification of 48,788 samples. Licensed cotton linters classifiers sent in 4,607 check samples, representing 99,761 bales covered by 1,112 classifiers' certificates.

During the year, inspectors of naval stores inspected, graded, and classified 239,456 drums of gum rosin and 2,561 drums or barrels of gum turpentine. These inspections were covered by 10,875 Federal inspection certificates on rosin, and 201 on turpentine.

For lend-lease purchases, inspections, analyses, and certifications were made on lots of gum turpentine, steam-distilled wood turpentine, wood rosin, alpha pinene, tall oil, and rosin oil aggregating 7,443 drums. Laboratory analyses were made of 13 samples prior to the issuance to vendors of certificates to determine compliance with specifications.

SUPERVISION OF SPOT COTTON MARKET

Accurate cotton price quotations in the 10 designated spot markets are essential to the orderly functioning of the cotton futures exchanges. Averages of premiums and discounts quoted in these markets are used in settlements for quality other than the base quality (Middling $1\frac{5}{16}$ inch) delivered on futures contracts under Section 5 of the act, and similar data are used in the administration of the Federal Price Control Act, the Federal Crop Insurance Act, and for other purposes.

A group of members known as the quotations committee maintained by the spot cotton exchange in each designated market, is responsible for issuing accurate quotations for some 200 different qualities of cotton. During the year representatives of the OD worked closely with these committees.

IMPROVEMENT GROUPS

The Smith-Doxey Act provides a cotton-classing and market news service, now 6 years old, for farmers organized to promote the improvement of cotton. The growth of this service is shown in table 6.

The number of organized cotton improvement groups increased from 312 in the 1938-39 season to a peak of 2,511 in 1941-42, but in 1943-44 it decreased to 2,259. The average number of members per group, however, has increased steadily from only 60 in 1938 to 125 in 1943-44. Total membership of these groups increased from 18,589 in 1938 to 281,493 in 1943-44. Average acreage per member also increased—from about 27.5 acres in 1938-39 to 36.2 in 1943-44.

Acreage planted by group members has increased from about 2 percent of the total United States acreage in 1938 to almost 46 percent in 1943. The number of samples actually classed for members totaled only 83,592 in 1938, against more than 3,350,000 in 1943. The number of samples classed amounted to less than 1 percent of total cotton gin-nings in 1938, against 30 percent in 1943. The number of samples classed per member increased from 4 in 1938 to 12 in 1943. The increasingly large groups shown by these figures reflect a tendency in recent years to organize county-wide groups.

TABLE 6.—*Growth of cotton classing and market news service for farmers organized to promote the improvement of cotton*

Season	Groups served	Members	Samples classed	Season	Groups served	Members	Samples classed
	<i>Number</i>	<i>Number</i>	<i>Number</i>		<i>Number</i>	<i>Number</i>	<i>Number</i>
1938-39.....	312	18,589	83,592	1941-42.....	2,511	278,782	2,520,083
1939-40.....	918	64,399	265,090	1942-43.....	2,465	281,100	3,567,095
1940-41.....	1,573	128,216	1,530,764	¹ 1943-44.....	2,259	281,493	3,350,622

¹ Preliminary.

The cotton-improvement planting-seed program is intended to encourage the growth of a single improved variety of cotton by all growers in large areas where growing conditions are uniform, in order to improve cotton quality, increase yields per acre, and standardize production by the elimination of inferior varieties now being planted.

Announced originally in September 1942, the program was in operation in five States during the 1943 crop year. Extent of participation is shown in table 7.

TABLE 7.—*Summary of results of operation of cotton-improvement planting-seed program, by States, 1943*

State	Growers participating	Seed delivered	Acreage planted ¹	Production ¹
	<i>Number</i>	<i>Pounds</i>	<i>Acres</i>	<i>Bales</i>
Florida.....	1,555	287,722	11,509	4,238
Tennessee.....	1,204	501,620	20,065	13,684
New Mexico.....	745	717,255	28,690	28,510
Oklahoma.....	1,401	628,257	25,130	6,361
Texas.....	5,751	4,565,698	182,628	65,716
Total.....	10,656	6,700,552	268,022	118,509

¹ Estimated on the basis of 25 pounds of seed planted per acre and average yields per acre.

COTTON DIVERSION

Three cotton diversion programs were carried on during the year—for those concerned with cotton insulation, cotton bagging for cotton bales, and cotton to be used in the manufacture of binder twine. All of them utilized low-grade, short-staple cotton of which there was a large surplus.

The potential consumption of cotton for insulation, even though it be employed for only 10 percent of the market, is from one-half to three-quarters of a million bales annually. Considerable progress was

made in getting cotton insulation manufactured. The Government makes incentive payments, but not until the product is sold, manufactured, and delivered by the processors. Public acceptance of the new product increased satisfactorily. Plants processing it were located in seven States. Cotton insulation manufactured during the first half of 1944 totaled about 4.1 million pounds, and utilized approximately 10,000 bales of low-grade, short-staple cotton. The annual rate of production was higher than that of the calendar year 1943, when about 7.4 million pounds of insulation was produced; and it was more than all the cotton insulation manufactured from 1940 through 1942.

The program for the fiscal year 1944 provided for a maximum of 60 million pounds of insulation and a total expenditure of 5.4 million dollars. Sales or contracts of sale made under the program for the fiscal year, totaling approximately 59 million pounds, were completed on or before June 30, 1944.

No program for producing cotton bagging for cotton bales was begun during the year, but under earlier programs such material was manufactured to the extent of about 78,000 patterns (bale covers) in which 850 bales of cotton were used, under incentive payments totaling about \$31,000. This use for cotton was selected as an outlet for low qualities of raw cotton that would consume about 100,000 bales annually if cotton patterns were used to wrap about 12 million bales. The program was begun in 1938.

Made effective in 1943 and completed during the fiscal year 1943-44, the cotton-for-binder-twine program was begun in cooperation with and at the request of the War Production Board in order to supplement the supply of binder twine urgently needed for harvesting American crops. The program extended existing stocks of sisal and henequen.

Approximately 16.9 million pounds of cotton yarn, equivalent to about 40,000 bales of raw cotton, were reportedly used in this manufacture. Payments made totaled about 4.2 million dollars. Of the yarn used, about 11.6 million pounds, or nearly 70 percent, was consumed during the fiscal year, the remainder having been used during the preceding year.

MARKETING STUDIES AND RESEARCH

During the year data on the prices received by cotton growers, central market prices, and prices paid by cotton manufacturers were brought up to date. The total average spread between farm prices and mill prices for 1942-43 was 206 points or \$10.30 per bale. This compares with the 6-year average of 210 points or \$10.50 per bale for the period from 1937-38 through 1942-43. The spread between the average farm price and the average price paid by mills for the 1942 season represents approximately 10 percent of the average price paid by mills. The spreads between farm prices, central market prices, and mill prices differ considerably for the various cotton-producing States, depending primarily upon the location of the producing States with respect to cotton mill centers. Total spread between farm prices and mill prices for specific qualities are not possible to determine because data on the prices received by farmers for cotton of various qualities are lacking.

Data on the charges of cotton compress and warehouse companies for receiving, compressing, sampling, storing, weighing, and other services were brought up to date, as were data on the costs to cotton growers for ginning and packaging.

Development work was continued on automatic mechanical equipment for sampling cotton bales during the ginning process. Previous models of the sampling device were modified to permit its location on the press deck where it is more accessible to the press attendant. This modification will be tested at two commercial gins during the 1944 ginning season.

A comprehensive study was begun, to develop information on the economy of operating modern cotton-ginning establishments designed to draw supplies from larger areas that modern means of transportation make accessible, as compared with the traditional small-scale ginning establishment supplied with raw cotton brought to it in horse-drawn vehicles over unimproved country roads.

Studies of cotton-picking after undue field exposure as compared with timely picking, were made to determine the most profitable picking practices in view of current labor shortages. Results indicated that weather damage from undue exposure in the field is one of the most important factors affecting the quality of cotton and cottonseed. Tests were made to determine the comparative moisture and foreign-matter content of seed cotton and the comparative effects on the cleaning of seed cotton which has been picked by hand and by machine.

Several seed-cotton drying and conditioning studies were undertaken. Under present practice the need for drying a given lot of seed cotton before it is ginned, and the right air temperature at which the cotton drier is operated, are determined by the feel and the general appearance of the material. To overcome the inaccuracies manifest in such a test, the Office of Distribution has worked to establish the relation between the moisture content of seed cotton and the relative humidity of the air within it. This relation has served as the basis for the development of a system of humidity-temperature drier control.

Development work was done on a unit which combined the functions of drying, cleaning, and extraction. A resulting "drystractor" was given field tests. This device promises to become a very economical means of drying and cleaning cotton at small gins and of improving the grade of the cotton they gin.

Development work was done also on a cottonseed drying and cleaning unit for installation in commercial gins to improve the grade and milling qualities of cottonseed and to preserve its germination qualities. A triple drum device showed promise and is being built for extensive tests during the 1944 ginning season.

The customary practice at roller gins is to handle the ginned lint by hand between gin stand and bale press. This requires extra labor and results in poorly packed bales. During the year development work aimed at devising a pneumatic lint-handling system for roller gins was continued. A combination suction type of nozzle for removing the lint from the roller and conveying it through a suction condenser to the press in a uniform batt, was installed and tested in a commercial roller gin.

An investigation to determine the extent to which cotton bales are mixed-packed was continued. Samples of cotton taken from the top

and bottom of every hundredth bale sampled at selected compresses have been collected for this purpose each season during the period 1939-44. The data indicate that for most bales the samples so taken vary significantly in quality. As a result growers, who must sell on the basis of low-side classification, lose money.

It was determined that bale appearance will be improved and packaging costs reduced if bales are pressed at gins to standard density. Present practice is to press bales to "low density" at gins, and later to recompress them at compresses to "standard density." An experimental press was developed at the ginning laboratory, and in the light of test results a commercial low-density press was converted into high-density operation to determine the economic and mechanical feasibility of standard density pressing at gins. This press reduced the gin bales to sizes comparable to compress standard density bales.

Tests were conducted to improve the method of tying ginned standard density bales, and to determine the comparative effects of weather exposure on cotton bagging treated with a water-resin emulsion and on cotton bagging not so treated. Studies were made of changes in cotton temperature during compression of round bales.

The first segment of a comprehensive study of the relations of various fiber properties of raw cotton to processing performance and yarn quality was completed. This segment established the relation between the various properties of raw cotton and the strength of 22s yarn.

As a basis for selecting cotton for the official standards for staple length, fiber-length arrays were made on samples representing 112 bales of cotton under consideration for purchase as copy bales of the standards.

Basic color and illumination data assembled over a period of years—partly in collaboration with other agencies—have made the color laboratory a focal point for assistance with problems of the military services dealing with camouflage, color specifications, and tolerances of textiles, color matching, tests of color vision, and illuminants for artificial daylight.

Research conducted over many years has resulted in equipment and techniques for measuring and testing such physical properties of cotton fibers as tensile strength, fineness, maturity, length and length variability, and fiber structure. Similarly, laboratory techniques have been developed for testing, on commercial processing equipment, the spinning performances of small samples of cotton. Test results are provided in terms of manufacturing waste, yarn strength, and yarn appearance.

All of these tests, which were continued during the last year, have now been reduced to routine and are used extensively in various research studies incident to standardization, the development of improved varieties and strains of cotton, and improved methods of harvesting, conditioning, cleaning, ginning, and packaging. In response to the requests of cotton breeders and others, Congress in 1941 authorized fiber and spinning testing for private individuals and firms on a fee basis. The testing is done in laboratories at Washington, D. C.; Clemson, S. C.; Stoneville, Miss.; and College Station, Tex.

The Service Testing Act of April 7, 1941, provides for analysis of fiber properties, spinning tests, and other tests of the quality of

cotton samples submitted by cotton breeders and others. During the year a total of 288 individual requests was received from 87 different applicants for the testing of 4,815 samples.

A large volume of fiber and spinning testing is done on a cooperative basis for various research agencies. The principal job in research testing is connected with the annual variety tests participated in by the Bureau of Plant Industry, Soils, and Agricultural Engineering and the various State agricultural experiment stations. During the year complete fiber and spinning tests were made on 259 lots of cotton representing the leading varieties and strains of cotton grown at 30 experiment stations across the Cotton Belt. Results of these tests are a guide to experiment station workers in developing new varieties and strains, and they also are used extensively by cotton growers as a basis for selecting the varieties most suitable for production in their own localities.

MARKET NEWS

Daily, weekly, and monthly reports were released during the year for direct distribution to farmers and to the cotton and cottonseed industry and trade, and through local and national newspapers, agricultural journals, trade publications, and the radio. Price quotations and market reports were posted at gins, country stores, and other places where farmers might see them.

Market news reports on cotton were released from Atlanta, Dallas, and San Francisco. Price quotations and other market information were received regularly from 25 points.

The Weekly Cotton Market Review, with basic supply, demand, and price statistics, was released from Washington to a mailing list of about 500.

Market news on cottonseed was released from Atlanta and Dallas in the form of weekly cottonseed reviews containing data on the high, low, and average grade of cottonseed by counties, and the average wagonlot prices paid to farmers by ginner in each important cotton-producing county. The Atlanta mailing list numbered 2,900 and the Dallas list 4,410.

The Weekly Cotton Linters Review carried information on prices, production, consumption, and stocks of linters.

Mill margins for 17 constructions of medium and coarse cotton cloths were prepared and issued each month as mimeographed releases.

DAIRY PRODUCTS, EGGS, AND POULTRY

FOOD ORDER ADMINISTRATION

Each of the 16 War Food Orders for dairy and poultry products that existed during at least a part of the year represented a part of the necessary over-all control of the utilization and distribution of milk, dairy products, poultry, and eggs. The orders either restricted production or sales for civilian outlets, reserved part of the total supply for military, lend-lease, and other uses, or regulated the total disposition of the product. These types of control were effective and administratively more feasible than the alternative of attempting to direct several million farmers and many thousands of processors and handlers individually as to where they must deliver and what they must do with their milk, dairy products, poultry, or eggs. Separate orders

were used for individual products or groups of products because: (1) Controls were not issued until they were proved to be necessary and (2) different types of control were best adapted to particular products according to their characteristics and established distribution systems.

Nine orders were continued from last year; seven new ones were issued. Six were terminated because they were issued temporarily or they were no longer needed. Thirty-three amendments and supplementary orders were issued to improve operations and carry out the provisions of the basic orders.

Set-aside orders either specified the percentages of production or supplies required to be reserved for designated agencies, or provided that the Director of Distribution specify such percentages from time to time. Generally, the set-aside orders provided that manufacturers might sell set-aside products either to designated agencies, or to authorized receivers or assemblers who set aside equivalent quantities for sale to such agencies. This provision facilitated prompt handling of the products and aided Government procurement in carlots. For example, about 87 percent of the butter set aside moved through authorized receivers in established trade channels. Relatively few prosecutions for noncompliance with the orders were necessary.

In general the objectives of the War Food Orders covering dairy and poultry products were achieved. A shift from a deficit- to a surplus-producing situation in eggs permitted the discontinuance of the egg orders. Two temporary orders were used to facilitate the acquisition of turkeys for holiday dinners for all members of the armed forces and the merchant marine. Butter and cheese set-aside orders were adjusted seasonally to take care of military and lend-lease requirements with minimum disturbance to the regular flow of civilian supplies. Limitations were placed on production of some of the cheese and dried-milk products to prevent diversion of milk away from Cheddar cheese, evaporated milk, butter, nonfat dry milk solids, and dried whole milk urgently needed by war agencies.

Restrictions on sales of fluid milk and milk byproducts and on production of ice cream and other frozen dairy foods were relaxed to avoid the loss of milk during the flush production period. The whipping cream sales ban was continued and made more effective to eliminate evasions. Sales and processing of milk sugar were placed under rather complete regulation to assure an adequate supply for the production of penicillin and to take care of other essential military and civilian requirements.

Butter

War Food Order 2, effective since February 1943, provides that every person who manufactures creamery butter, except certain small-volume producers, must set aside and hold a specified percentage of his production for delivery to designated military, lend-lease, and war-service agencies. From February to September 1943, 464 million pounds of butter were set aside. About 2 million pounds were released from the restrictions of the order, and the remainder was delivered to approved war agencies. This program provided enough butter to meet all war requirements through March 1944. As a result of heavy purchases during the flush season and storage operations by war agencies, civilians retained a rather constant amount of creamery

butter each month, averaging around 100 million pounds. About 37 million pounds above requirements were carried beyond March 31 by WFA and it was therefore possible to delay the 1944 set-aside program until April, when a 10-percent set-aside requirement was introduced. May and June set-aside percentages were 40 and 50, respectively.

Under the order, manufacturers could deliver to an authorized receiver who in turn delivered an equivalent quantity to an eligible agency. About 87 percent of the butter set aside during the 1943 program followed the channel, creamery to receiver to eligible agency.

Cheddar Cheese

WFO 15, which closely resembles the creamery butter set-aside order, has been in effect since February 1943 and provides for the setting aside of Cheddar cheese to meet requirements of specified Government agencies. Operating amendments are made every 60 days establishing set-aside percentages for the next 2 months. The order as it stood at the end of the year provided that cheese producers who manufactured more than 8,000 pounds of Cheddar cheese in any month between January 1, 1942, and February 1944 were required to set aside and hold their required percentages of cheese for delivery to Government agencies. It is estimated that during the year 386 million pounds of Cheddar cheese were set aside.

During 1943 it became apparent that reduced production of needed dairy products resulted in part from the diversion of milk into other products that were not required by the military forces and other war agencies. Among the products that showed production increases despite declining milk supplies were cheeses other than Cheddar. By producing these cheeses, processors escaped the set-aside requirements for such products as Cheddar cheese and butter, and took advantage of relatively favorable price ceilings. To stem this diversion, WFO 92 was introduced in February 1944. The order limited the production of cheeses other than Cheddar, cottage, pot, baker's, and whey cheeses to the amounts produced in the corresponding calendar quarters of 1942.

Nonfat Dry Milk Solids

WFO 54, effective June 1, 1943, was issued to make nonfat dry milk solids available to the Government for war purposes. It requires that specified percentages of nonfat dry milk solids be set aside for designated agencies and permits producers to sell their set-aside to authorized receivers who agree to sell it to designated agencies. The percentages were 75 for both spray and roller powder until May 1944, when roller was reduced to 50 percent. In June 1944 both were reduced temporarily as a result of a barrel shortage. Under the order the burden of supplying urgent war needs was equitably distributed among members of the dried milk industry.

Prevention of Milk Diversion

WFO 93, effective March 1, 1944, was issued to prevent the diversion of milk from the production of products essential to the war effort. It restricts the sale of dried-milk products (except nonfat dry milk solids, dried buttermilk, and dried whey) to United States civilians to: (a) 75 percent of the amount of such sales during the corresponding period of 1942, or (b) 10 percent of the amount currently sold to

Government agencies and for export. It also restricts the sale of dried milk compounds (dried milks containing less than 35 percent milk solids) to United States civilians to 100 percent of the amount of such sales during the corresponding periods of 1942. It also prohibits, after July 1, 1944, the production of dried-milk products or dried-milk compounds to an extent which will increase the inventories of these products beyond stated limits.

Reason for the order was that during the 1943-44 fall and winter season, the production of nonfat dry milk solids and butter fell off considerably as a result of a diversion of milk solids and butterfat to uncommon milk products such as dried part skimmed milk and roller dried whole milk. Almost immediately after the order was issued, record increases in the production of nonfat dry milk solids were reported.

Sales Quotas

WFO 79, effective September 10, 1943, was issued to maintain production of manufactured dairy products for essential wartime needs and to avoid consumer rationing of fluid milk. It established sales quotas for milk, cream, and milk byproducts to be distributed within defined sales areas; provided that handlers should practice equitable distribution; prescribed the manner in which quotas were to be calculated; designated a market agent for each milk sales area or combination of areas; and made other provisions to stabilize and control civilian sales of these highly perishable dairy products.

At the end of the year, subsidiary orders were in effect in 138 sales areas, each a metropolitan area of 50,000 or more in population. Between 5,000 and 5,500 reporting handlers and over 65,300,000 persons have been brought within the scope of the milk-conservation program. Each area order is administered by a market agent designated by the Director of Distribution.

Per capita fluid milk consumption in the United States increased during 1942 and early 1943 at the rate of approximately 1 percent a month. Government efforts to encourage increased milk production and increased delivery of whole milk through increased production and the shifting from cream delivery to milk delivery in order to obtain needed quantities of evaporated milk, dried whole and dry non-fat milk solids and cheese for war purposes would have been nullified had fluid milk sales not been stabilized.

In all areas, June 1943 was selected as the base. By that time consumption already had reflected the Nation-wide increase in buying power, and ample supplies were available during the base period to provide a reasonable supply for the average person under war conditions. The selected month was also sufficiently recent to yield reliable figures. Quotas of milk were fixed at 100 percent of base deliveries and at 75 percent for cream and milk byproducts. Sales to specified Government agencies, including the armed forces, were made quota exempt. Schools and hospitals were quota exempt in the New York area when the program began, and similar exemption was extended to other areas by amendment as requested.

Flexibility in applying the program in different areas was brought about in various ways. Adjustments effected in response to petitions for relief from hardship were made usually by the local market agents and applied to individual cases. Use of a local administrative agency

in carrying out all phases of the order operations and amendments provided flexibility in meeting local needs. By December 1, 1943, market agents were authorized to set up quotas on a total milk solids basis for each quota product, with increased latitude for a transfer of the quota of one product to another. A volume limitation was retained on cream, and the transfer of milk quota to cream or a milk byproducts quota was not permitted. The milk solids basis for fixing quotas was introduced in all the southern markets. Authority granted to market agents to transfer quota between handlers under specified conditions also added to the flexibility of the program without detracting from its effectiveness.

During the months of flush production when weather was favorable and there was an increased number of milking cows, and under present labor shortages and transportation limitations, quota adjustments were necessary and advantageous. Quotas on cream and milk byproducts were increased from 75 percent to 100 percent of base deliveries during May and June. Additional market-wide relief was made available on prior approval of the Office of Distribution during April, May, and June. Such adjustments were made promptly in order to permit full utilization of milk for which manufacturing facilities were not available. Market agents in all areas actively cooperated with local industry to find outlets for temporarily "distressed" milk.

In April 1944, total milk quotas stood at approximately 102 percent of base sales—in large part a result of the relief which had been granted—and total deliveries stood at approximately 95 percent of quota. April quotas for cream were about 81 percent of base sales, with deliveries at about 99 percent. For milk byproducts, April quotas were about 77 percent of base sales, while deliveries were at only 78 percent. The clear indication is that notwithstanding the adjustments, the program was getting the desired results.

Milk-Marketing Economies

WFO 11, effective February 1, 1943, was issued to reduce distribution costs and to conserve manpower and critical materials. It applied to incorporated towns and cities with populations of 5,000 or more; eliminated all package sizes for milk below 1 quart, except for resale for consumption on the premises, in factories, schools, offices, on playgrounds, and the like; limited the purchase of milk and cream by stores, restaurants, and hotels to 2 sources, except when delivery exceeded 300 quarts; permitted the loading of vehicles with only the milk and cream for which the distributor had prior orders; required operators of stores, hotels, restaurants, and similar establishments to accept the milk or cream they had ordered; prohibited distributors from accepting returns of milk or cream; and required deposits on glass bottles, milk cans, and milk cases where milk was sold for consumption off the seller's premises. The order remained unchanged throughout the fiscal year 1944, and continued to provide a number of milk-marketing economy measures designed to simplify milk handling and reduce fluid-milk marketing costs.

Conservation of Butterfat and Milk Solids, Not Fat

WFO 13, effective February 3, 1943, was issued to conserve butterfat and milk solids, not fat, for war needs and essential civilian needs. It provided that no person might sell or deliver except to a handler

any cream or cream product having a milk-fat content greater than 19 percent; that no person might sell or deliver, except to a handler, any cream or cream product to which there had been added evaporated milk, condensed milk, dry whole milk, or dry skim milk (nonfat dry milk solids); that no person might sell or deliver filled cream having a fat content greater than 19 percent; and that cream might be delivered for use by the sick on the basis of a doctor's certificate approved by a local health officer or the county medical association. It is estimated that this order, through its direct approach and simple operation, diverts around 80 million pounds of butterfat a year to more essential wartime dairy products.

Frozen Dairy Foods

The aim of WFO 8, effective since February 1, 1943, was to make more milk available for either consumption as fluid milk or processing into needed dairy products. It encourages efficient use of milk solids and frozen dairy foods and minimizes the effect on the industry of the reduction in permissible milk solids. Affecting approximately 20,000 processors who in 1942 manufactured over 490 million gallons of frozen dairy foods, the order provides that a processor may utilize during any month no more than 65 percent of the milk solids used during the corresponding month of the base period (December 1, 1941, through November 30, 1942) in the manufacture of frozen dairy foods or mix, respectively, for civilian consumption; limits the maximum total milk solids contained in such products to 22 percent by weight; limits the nonfat-milk-solids content of such products to 80 percent of the fat content by weight; and limits the use of milk solids in frozen dairy foods other than ice cream or ice-cream mix to either 10 percent of the quota (20 percent for California) or 100 percent of the amount of milk solids used in the production of such products during the corresponding month of the base period—provided that if the latter is used, the amount shall not be greater than the total amount of milk solids permitted in the manufacture of all frozen dairy foods or mix. Savings resulting from this order are estimated to be equivalent to 125 million pounds of butter and 75 million pounds of nonfat dry milk solids.

Milk Sugar

WFO 95, effective since April 1, 1944, was issued to channel milk sugar to its most essential uses. It requires specific authorization from the Director of Distribution for the delivery, acceptance, use, production, or refining of milk sugar. From this requirement it exempts deliveries of milk sugar in packages designed for household or pharmaceutical uses, and sales to institutions for use pursuant to doctors' orders or prescriptions.

In 1944, the demand for milk sugar was more than double that of the year before, as a result of the increased production of prepared infant foods and the increased requirements for penicillin and other pharmaceuticals. Declining production of casein with a proportional limitation on production of casein whey had reduced the supply. As a result, it became necessary to allocate the supply until production and requirements could be reasonably balanced.

To essential uses such as the production of penicillin and pharmaceuticals and the fulfillment of Government contracts, milk sugar

allocations were made in full. During the season of heavy milk production amounts to be used in seeding condensed milk also were granted in full. Allocations for the other domestic uses varied monthly, depending upon the current supply and stock situation.

In May and June 1944, as a result of expanded milk-sugar production and the lighter-than-expected requirements for penicillin production, it was possible to authorize the use of more than 90 percent of the total milk sugar requested. As the year ended, indications were that milk-sugar requirements for penicillin production for the 12 months ending March 1945 would run to 4.5 million pounds. The relation between supply and requirements had improved until all important uses of milk sugar were being met, and total allocations for other uses were being cut only slightly. But the balance was close.

Eggs

WFO Orders 40 and 41, effective March 25, 1943, may be considered as companion orders. WFO 40 prevented unnecessarily large accumulations of shell eggs in storage and directed them into wartime use as shell eggs or as dried whole eggs, whereas WFO 41 set aside 100 percent of all dried whole eggs and limited the production of frozen and liquid eggs, dried yolks, and dried albumen.

WFO 40, at the beginning of the fiscal year 1943-44, set aside all shell eggs stored before March 25, 1943. Shell eggs stored on or after that date were also set aside, but were required to be removed from storage after June 15, 1943. WFA was required to buy all eggs so removed from storage at prices no higher than ceiling prices unless sales were made to other governmental agencies or commercial concerns that had contracts for the future delivery of dried eggs. Most of the eggs were not taken out of storage immediately, but were sold to the armed forces, the War Shipping Administration, and egg-drying concerns.

As a result of the order, WFA bought 224,857 cases of eggs. Most of the eggs which were set aside and were not required to be removed from storage because they were stored before March 25, remained in storage until they were released to the owners at the termination of the order on October 7, 1943. OPA price ceilings did not permit seasonal price increases for storage eggs sold to the governmental agencies, and owners held the eggs hoping that such increases would be allowed eventually.

Egg shortages in the trade were apparent from July until the order was terminated. Some relief resulted from individual releases of certain classes of eggs, such as eggs of "No-grade" quality, those packed in cases that would not stand shipment, and small lots owned by bakeries and restaurants. The order operation was not entirely satisfactory owing to its unfairness to different members of the very complex egg industry, but in the end the objectives were achieved. Without the order, war needs of shell and dried eggs would not have been met.

Owing to the heavy consumer demand for bakery products, the production of frozen and dried eggs for domestic use would have increased to a point where the lack of a restrictive order would have jeopardized war requirements. WFO 41 provided for the complete setting aside of all spray-dried whole eggs, and limited the production

of all frozen eggs, dried yolks, dried albumen, and pan-dried whole eggs to the amounts produced during the previous year. Terminated October 22, 1943, this order during its existence held down civilian egg consumption. During the calendar year 1943, about 209 million pounds of dried eggs were delivered to Government agencies. About 80 percent of this amount was processed or contracted for under the order.

Poultry

WFO 71, effective August 2, 1943, was issued under a plan to procure 10 million pounds or more of turkey for delivery at shipside as holiday turkey for servicemen overseas.

The order prohibited the sale, purchase, or processing of live or dressed turkeys except as authorized by designated governmental agencies. Later, the goal was increased to include turkeys for camps in the United States. A total of about 30 million pounds was obtained, and the order was terminated on October 25.

Owing to meat shortages during the fall of 1943, there was a strong domestic demand for poultry. Poultry storage stocks reached a record high on January 1, 1944. As a result, the armed forces and the War Shipping Administration could not build up enough stored poultry; the armed forces were short about 40 million pounds, and the WSA about 10 million pounds. After an unsuccessful attempt by the armed forces to use letter purchase orders carrying a priority rating of FR-9, the War Food Administration issued WFO 91.

This order required that all chicken and fowl in cold storage (except that held by owners of 3,000 pounds or less) be set aside and held for delivery to the Quartermaster Corps or the War Shipping Administration. Military and WSA needs were filled without difficulty, and the order was terminated on April 3, 1944.

WFO 97, effective April 21, 1944, was designed to make possible the procurement of 8 million pounds or more of dressed hen turkeys for use against Army requirements of 50 million pounds or more for shipment overseas for Thanksgiving. Under it, turkeys in the designated areas could be processed only by authorized processors and were set aside and held for delivery to the Quartermaster Corps. In some cases, turkey producers were authorized to slaughter and deliver turkeys to a wholesale receiver or to a storage warehouse. There the turkeys were set aside and held for delivery to the Quartermaster Corps. Hen turkeys moved rapidly, the Army procured over 8 million pounds, and the order was terminated on June 3, 1944.

STANDARDIZATION

Quality problems continued to receive attention during the year, and advisable revisions in existing standards as well as the need for new standards and specifications for additional products were studied further. For example, assistance was given to Cheddar cheese factories in correcting difficulties encountered in making cheese of satisfactory quality for military and lend-lease use. Specifications for special products needed for war use were developed. In cooperation with the Army, particular attention was given to the development and the revision of standards for producing and packaging dried whole milk of suitable high-keeping quality for overseas shipment.

In connection with poultry and egg standardization work, two new sets of tentative grade and standard specifications were developed and one set was revised. These consisted of tentative United States standards for classes and grades for live poultry, and tentative United States standards for classes and grades for eviscerated federally inspected chickens. Tentative United States standards and weights for wholesale grades for shell eggs were modified to make them simpler and bring requirements into closer agreement with consumer grades, as well as to assist the Office of Price Administration in its preparation of an amendment to its MPR-333.

Work was begun on the preparation of tentative United States standards for classes and grades for eviscerated federally inspected turkeys and grade standards for frozen and dried eggs.

A study of State laws relating to egg grading, market standards, and regulatory and enforcement provisions and practices was begun in cooperation with authorities in 42 States.

INSPECTION AND GRADING

During the year inspection and grading work on dairy and poultry products was increased by the tremendous demand for the grading of war purchases, which are based on United States grades by Government agencies and others. Arrangements were completed with the War Shipping Administration for inspection and certification by the Office of Distribution of dairy and poultry products for that agency, at ports of embarkation.

To help the Office of Price Administration eliminate the upgrading and black-market activities in butter, the Office of Distribution undertook to grade butter on a Nation-wide scale, the grade to be checked at various shipping points and terminal markets. In the course of this operation, discrepancies were found to exist between grades being established by the Army and those of WFA. As a result, OD reached an agreement with the Army Quartermaster Market Center to check with Army inspectors the grading of products accepted for the armed services by the Veterinary Corps.

In the fall of 1943 the OD and the Army cooperated in the Del-Mar-Va area on live poultry. Since the Army at that time was acquiring poultry in this area for dressing purposes, the program was begun in order to stamp out poultry black markets. Within 3 months the Army had obtained the supply it needed.

The grading of dairy products under various set-aside orders to determine compliance with contract specifications was continued during the year. Butter graders were assigned to various plants which had been designated to convert previously purchased butter into butter oil and spreads.

Samplers were stationed in milk-drying plants as a result of increased Government purchases of dried milk.

During the year 97 dairy and poultry-grading schools were held, with a total attendance of 1,452. Requests for appeal gradings on previously graded products totaled 11. In 9 of these regradings the original gradings were upheld and in 2 they were reversed.

FLUID MILK PROGRAMS

Principal Office of Distribution activities concerning fluid milk marketing and distribution programs during the year centered around five types of programs. One of these was discussed earlier in this section, under WFO 79. The other four are as follows:

Milk Marketing Agreements and Orders

During all or part of the year, 25 marketing agreements and order programs were in force. Approximately 125,000 producers, with an output of some 13 billion pounds of milk worth almost \$424,000,000, were subject to the programs.

Eighteen hearings were conducted during the year to consider new programs or amendments to existing programs. New programs effective during the year were orders for St. Joseph County, Ind. (July 1, 1943), and Wichita, Kans. (June 1, 1944). The latter replaced a license, issued under the original Agricultural Adjustment Act, which had been in effect since 1934. Final action on the issuance of new orders for suburban Chicago and Clinton, Iowa, was pending at the year's end.

Amendments were made effective during the year to the orders regulating milk-handling in the Quad Cities (Rock Island, Moline, and East Moline, Ill., and Davenport, Iowa), Cincinnati, St. Louis, Duluth-Superior, Fort Wayne, Louisville, Boston, and Fall River markets. Action was still pending on proposed amendments to the Cincinnati, Lowell-Lawrence, and Philadelphia orders. A second proposed amendment to the Quad Cities order was not approved by enough producers in the referendum and therefore was not issued.

No action was taken as a result of hearings held last fall to consider amendments to increase the class 1 prices in the New Orleans, Philadelphia, and Washington, D. C., markets because of the milk production payments program begun by WFA.

Many of the marketing orders contain provisions for seasonal price reductions during summer. To encourage producers to maintain higher production levels, provisions of this type were suspended in a number of markets, including Chicago, Lowell-Lawrence, New Orleans, and Toledo.

In accordance with the policy of terminating all inactive programs, licenses or orders were terminated during the year in the Cincinnati, Shreveport, Kalamazoo, Battle Creek, Leavenworth, Denver, and Minneapolis-St. Paul markets. The Wichita license was suspended on June 1, 1944, when the new order for that market became effective. Producers in several markets not under Federal regulation have expressed interest in orders to regulate milk handling in their markets. Consideration is being given to the issuance of orders for the following areas: Springfield (Mass.), Detroit, Rockford, Freeport, Dayton, Columbus, and the upper Ohio River Valley.

Compliance continued to be generally satisfactory in all markets.

Thirteen petitions were filed under Section 8c (15) (A) of the Agricultural Marketing Agreement Act of 1937, as amended. Eighteen such petitions were disposed of, 5 of them were handled by consent dismissals, and the requested relief was denied in 11 cases and granted in 2. As the year ended, 42 remained.

Milk Price-Ceiling Adjustments

Retail prices for milk and cream were placed under price-ceiling control earlier than for the other principal dairy products. Also, prices for milk for fluid use continued as the only prices for milk or cream at the producer level subject to price-ceiling control. These two circumstances raised a continuing problem concerning the level of fluid-milk prices to producers in many local markets—particularly those where milk and cream are sold for both fluid and manufacturing purposes.

For the United States as a whole, the average price which condenseries paid to producers for 3.5-percent milk was \$1.85 per hundred pounds in June 1942, \$2.59 in June 1943, and \$2.61 in June 1944. The price that producers received for all whole milk sold at wholesale (average test) was \$2.32 per hundred pounds in June 1942, \$3.02 in June 1943, and \$3.10 in June 1944. The average price paid by dealers for 3.5-percent milk for city distribution as milk and cream was \$2.75 per hundred pounds in June 1942, \$3.18 in June 1943, and \$3.23 in June 1944. Between June 1942 and June 1944, the condensery price had increased by 76 cents per hundred pounds, the producer price for all milk 78 cents, and the price for milk for city distribution 48 cents. This discrepancy between producer and resale prices was greater during the fall months when both the condensery price and the price for all milk were somewhat higher. It was also greater than that indicated by these figures in many individual markets where needed price adjustments had not been made by the end of the year.

Purchase and Resale Programs

In the larger milk markets, most adjustments that have come about in producer prices since the "hold-the-line" order early in April 1943 have not been accompanied by adjustments in retail milk prices. It has been necessary therefore to bridge this gap and to facilitate payment of the higher price to producers by paying subsidies to milk dealers in the markets. The subsidies are paid by the Commodity Credit Corporation through the market administrators operating under the milk-marketing-order program. Under the program, handlers are offered producer ceiling prices for their milk and an opportunity to buy it back at a lower price, this lower price being the maximum which the handlers are able to pay under the existing retail ceilings.

Programs of this type were begun in the Washington, D. C., area on April 8, 1943; Omaha, April 11; Baltimore, Wilmington, Philadelphia, and five eastern Pennsylvania areas, April 12; and New York City, November 1. Approximately 382 million pounds of milk per month are affected, with a difference between purchase and resale prices of about \$984,000 a month. On the average, the resale price under the programs is about 26 cents a hundred pounds of milk lower than the purchase price.

Milk Shortage and Surplus Problems

During the year much was done to help relieve emergencies involving both shortages of milk for fluid purposes in local markets and abundances of milk for which a local market was not readily available.

The handling of shortages involved the development, approval, and

operation of a comprehensive voluntary allocation plan for 700 milk distributors in New England, and less formal arrangements through industry committees and market organizations in New York, Chicago, and other areas. In addition the locating of available milk supplies during the short season was a special help given to many markets.

A special Section 32 program was developed for the season of heavy production in order to assist the movement of "distressed" milk to plants where it could be utilized. It was not necessary to use the funds provided because milk handlers complied voluntarily and quota restrictions on fluid milk, fluid cream, milk byproducts, and ice cream were liberalized during the season of heavy production so as to reduce the danger of milk waste. Industry advisory committees indicated that a substantial waste of milk during the heavy production season was prevented.

The problem was particularly acute around selected markets where production for short periods was substantially higher than during the previous year and where shortages of transportation and labor caused special difficulty in the disposal of overabundant milk. Although small and isolated quantities of skim milk were dumped during the few weeks of highest production, the quantity was perhaps no greater than that so wasted in any "normal" year.

MARKET PRACTICES AND RESEARCH

At the Chicago and Philadelphia laboratories, a compilation was made of tests on the solid and fat content, solubility indices, and palatability scores and plate bacteria counts of whole dried egg powder. This information is distributed monthly to the drying plants concerned.

Information was accumulated on the different makes and types of egg driers. This included a study of the type of heat employed for drying and of the effect of premixing gas fuel on the quality of dried egg powder when direct fire-drying is employed. Studies were also conducted to determine the effect of temperature and the type of drier upon the presence of salmonella in dried egg powder.

Tests were conducted in cooperation with the British Food Mission to measure the moisture content and palatability score with identified lots of dried eggs which were checked at each step of processing and distribution from the drying plant to the ultimate consumer in Great Britain.

Container studies of the manufacture and use of fiberboard egg cases dealt with construction principles and the testing, in cooperation with the United States Forest Products Laboratory and the Association of American Railroads, of cases under actual shipping conditions. Tests were conducted in Minneapolis to determine the best methods of taping fiber cases and packing them in freight cars for shipment.

MARKET NEWS

A special daily report was inaugurated at Chicago to show purchases currently made there by the Army Quartermaster Market Center. A weekly report of butter and egg movements into retail channels was begun at San Francisco. Coverage of sales used in reporting wholesale prices was extended. Egg-price reporting was adapted to current practices of Government-buying agencies in keeping with United States standards and grades for eggs. Terminal market re-

ceipts were expanded to include frozen eggs and live poultry at additional markets. Receipts of live poultry according to class were compiled.

A preliminary study of the possibility of reporting current butterfat prices in the Chicago market was made. Steps were taken to improve the report covering weekly marketings of eggs and live poultry by producers at country packing plants in the central Western States. Coverage of the weekly summary of average daily deliveries per dairy, released at Philadelphia, was extended to include all principal dealers, representing approximately 9,000 herds. A project was organized to survey the coverage in the report of receipts of milk, cream, and condensed milk in the Boston metropolitan area.

Cooperative agreements on market news were in effect during the year with California, Michigan, New York, and Virginia. Owing to a reduction in Federal funds, the agreement in Louisiana was not renewed. Preliminary negotiations for cooperative work with the State of Washington were begun.

FATS AND OILS

The total supplies of fats and oils that became available during the year were slightly larger than the estimates at the beginning of the year. They amounted to 12.3 billion pounds, of which 11.3 billion pounds were produced from domestic materials and 1.0 billion were imported. The total consumption or disappearance, about 11.6 billion pounds, nearly equaled the July 1943 allocation. As the year closed, estimated stocks were larger than anticipated by some 300 million pounds, as a result of larger production and imports and larger total stocks on July 1, 1943, than had been estimated.

Vegetable oil and butter production was considerably smaller than anticipated, whereas that of lard and inedible tallow and grease was very much larger. Consumption or use of lard and inedible tallow and grease was greater than anticipated in July 1943 but not enough greater to absorb the production. As a result, lard and inedible tallow and grease accumulated. On the other hand, the shrinkage in vegetable oil production was not matched by an equal reduction in use; therefore the improvement anticipated in the weak stock position of these oils as of July 1, 1943, for the most part did not come about.

Total stocks increased, but the increase was largely of lard. During the last half of the year, the large production and accumulating stocks of lard distorted the whole fats and oils situation and created a serious unbalance. The handling of such huge quantities of lard was itself a serious problem. Moreover, at a time when the whole fat and oil situation was only moderately easy, the lard surplus created a false impression of plenty.

This situation would have been worse had not the OD insisted that the commitment to the Soviet Union be largely filled with linseed oil. This oil was in good supply because of the very large 1943 flaxseed crop. Moreover, for price and technical reasons, linseed oil is not easy to use domestically except in its own special fields.

Although vegetable oil quantities fell short of expectations, production as compared with previous years was high and supplies were

adequate to meet needs. Furthermore, much of the difficulty in 1942 and 1943 arose from the disturbed conditions. Many manufacturers were forced to make drastic changes in their formulas or use patterns because they could not get the material they needed to continue old practices.

While the changes were being made, serious problems existed in the distribution of the preferred oils until the users could readjust themselves to the use of other oils. Another disturbing factor was the abrupt withdrawal of large quantities of many oils which have important technical properties to form and replenish the stock piles needed for security.

After the supply situation improved and the industry had readjusted itself, it became possible to relax many restrictions, particularly the allocation order affecting individual fats and oils.

Problems

Early in the year there were complaints that certain packers were finding it difficult to dispose of noninspected lard. At the same time, supplies of fats for soap and other industrial uses were very limited. Accordingly, FDO 42 (now WFO 42) was amended, effective July 10, 1943, so as to remove lard from the list of fats that could not be used for inedible purposes. After that, soap companies were able to obtain ration-point certificates that permitted them to purchase lard for use.

Early in December 1943, soap manufacturers were informed that after January 1, 1944, ration points would be issued to them only for the purchase of noninspected lard. Between July 10 and December 31, 1943, contracts were placed for approximately 115 million pounds of lard, of which 95 million pounds had been delivered to manufacturers by December 31.

During the January-March 1944 quarter, an acute situation developed because of unprecedented lard production and the limitations on lend-lease exports as a result of the very tight shipping situation. A number of measures were taken.

Late in February, a special allocation of 50 million pounds of lard was made for soap to be purchased before July 1, 1944. To this was added in early March another special allocation of 50 million pounds of federally inspected lard. Another special allocation increased the quantity allocated for civilian use during March by 50 million pounds. Effective March 5, 1944, the point value of lard was reduced to zero.

Then a 33½-million-pound allocation of lard, to be purchased during the April-June quarter of 1944, was made. The plan was to pack this lard with a preservative in steel drums and store it until needed. Steel for these drums was allocated by the War Production Board, and at the end of the year purchases were being made as rapidly as the drums became available.

Early in May 1944, further measures were taken to encourage lard movement. WFO 1, which restricted bakers to not more than 3 parts of fats and oils to 100 parts of flour, was amended. It removed the restriction from May 15 to June 30, 1944, provided that the additional fat used consisted of lard. An amendment to WFO 42 permitted (subject to specified conditions) soapers and the manufacturers of margarine and shortening to use lard "ex quota" if it were purchased

or set aside between May 15 and June 30, 1944. In addition, the commercial export of lard was put on general export license, and restrictions on such exports were suspended between May 15 and June 30, 1944.

At the end of the fiscal year soapers had reported purchases of approximately 60 million pounds under the ex-quota provisions, but the effect of all the measures could not be determined accurately. Probably an equal or greater quantity was purchased in consequence of the permission to resume purchases that was given in February. The additional purchases of lard made by manufacturers of edible products as a result of the ex-quota provision seemed to be relatively small, probably not over 20 million pounds. The Foreign Economic Administration estimated that commercial exports during the period in which the general export license was in force approximated 100 million pounds.

It should be pointed out, however, that some of this lard would have moved without the special measures. Finally, it would seem that the effect of reducing ration-point values on lard to zero was more than offset when similar action was taken for shortening and other edible oil products.

Fundamentally, the difficulty arose because such a large part of the increased production was in the form of one kind of fat. There were two solutions. One was to use lard whenever a fat or oil was needed; the other was to restrict drastically the consumption of shortening and other edible vegetable oil products and thus increase civilian lard consumption.

The first alternative was the one attempted, but diversion of lard from its traditional use as a cooking fat was found to be very difficult. The industrial uses to which lard can be put are limited to those in which grease will do just as well. The recovery of grease increased sharply during the first half of the calendar year 1944, and the price of grease was lower than that of lard. Limiting factors in the use of lard for relief purposes have been the scarcity of cold-storage facilities and of the steel drums needed to store and hold lard for any considerable time.

The second alternative—to restrict the consumption of shortening and other vegetable-oil products—would have met opposition from the shortening industry and probably from certain classes of cooking-fat users.

FOOD ORDER ADMINISTRATION

During the year the Office of Distribution handled the applications for authorization to use the various oils controlled under War Food Orders 31, 32, 35, 36, 37, 39, 53, 60, 67, and 76 before the end of each month in order to give consumers enough time to receive their supplies for consumption during the authorized months. With representatives from other interested Government agencies, the OD decided on allocation policies in open meetings. Essentiality of the end use of any commodity rather than a system of priority was the basis for all allocations.

In allocating oils that were in very short supply, it was necessary during the first half of the year for OD representatives to be in almost daily contact with supply officers of the armed forces and representatives of the War Production Board. Because these oils were scarce, it

was necessary to work out with the armed forces new formulas that would permit use of domestically produced oils in better supply.

Monthly statements of use, production, and total availability of various fats and oils were compiled for presentation to the allocation committee for the particular fat or oil. A related activity was the issuance of ration certificates to such industrial consumers as used the kinds of fats and oils rationed under OPA Ration Order 16.

EDIBLE FATS AND OILS

Edible Vegetable Oils

The most pressing problem in connection with edible vegetable oils involved getting a distribution of the available supplies that would result in their most effective use. Since total demand for them exceeded supply, use limitations were necessary. Moreover, soybean oil constitutes nearly 45 percent of our available supplies of the four principal vegetable oils—cotton, corn, peanut, and soybean—whereas before the war it constituted only a minor percentage of the amount used for edible purposes.

Although the characteristics of cotton oil, corn oil, and peanut oil are not identical with respect to their use in the edible field, they are more nearly similar to one another than soybean oil is to any of them. With fixed ceiling prices, preference for cottonseed oil, peanut oil, and corn oil would result in a very unsatisfactory distribution of soybean oil. For these reasons, therefore, it was necessary to secure distribution control.

Two orders, both in effect prior to the beginning of the fiscal year 1943–44, controlled the consumption, delivery, and receipt by manufacturers of fats and oils. WFO 42 limited the consumption of total fats and oils used in the manufacture of margarine, shortening, and salad and cooking oils. WFO 29 apportioned according to use the four principal vegetable oils, the aim being to channel the proper kinds and quantities of oils for the military services, lend-lease, and commercial export to friendly nations. The latter order had two other purposes: (1) To supply enough of the four oils to make possible the manufacture of sufficient margarine, shortening, and finished edible oils to fill the civilian allocation; and (2) to make it possible to obtain supplies of products of the four oils for military demand, lend-lease, and commercial export, and to assure all manufacturers enough raw materials to enable them to bid on military and lend-lease requirements.

Both orders have been amended as changing conditions warranted. The amendments for the most part have relaxed the restrictions.

Rationing of Edible Fats and Oils

Food fats and oils, along with meats, were placed under a point-rationing system by the Office of Price Administration on April 1, 1943. Effective March 5, 1944, the point value of lard was reduced to zero, and on April 16, 1944, similar action was taken for shortening and other edible oil products. As the year ended, points were still required for margarine and butter.

Although point rationing did not work perfectly, it undoubtedly was an important factor in securing better distribution of fat and oil products. When meat was relatively scarce and meat-point values

were high, the rationing system effectively restricted the use of fats and oils. It was assumed, therefore, that as the meat situation eased, the restrictive effect of rationing on the total amount of fats and oils used in the civilian economy would decrease.

Points on lard were reduced and later entirely removed because so much lard was being produced. Almost immediately afterward competition led to the removal of points on shortening and other edible products also.

INEDIBLE FATS AND OILS

Glycerine

When the fiscal year began, the glycerine situation though still critical was improving, and by the end of the year the supply was fairly abundant. During the first quarter curtailment of glycerine use in all civilian industries continued to be necessary, and in some cases its use was forbidden altogether. But as lend-lease requirements decreased, owing to an overshipment to the United Kingdom and to increased production, the glycerine supply improved so much that by October practically all requests were granted in full.

The order governing glycerine use was revised effective January 1, 1944, with the method of control changed from direct allocation to a use limitation based on historical usage. In May, after continued improvement in the situation, the glycerine limitation order was removed entirely. WFO 33, which established standards of glycerine recovery, also became unnecessary and was revoked in June. At the year's end it seemed probable that no further control over the use or recovery of glycerine would be needed.

Fats Salvage Program

Of considerable importance in assuring adequate supplies of fats for numerous industrial uses has been the used household fats salvage program, under which housewives turned in waste kitchen fats and received red ration points as well as cash in return. This program was carried on in connection with the Office of Price Administration and the War Production Board and received wide support from the press, the radio, and periodicals. The constant flow of these heretofore waste fats has kept important reserves intact and has facilitated the manufacture of many industrial products that otherwise would have been scarcer or unavailable.

Soap

Because of a very short supply of fats for soap making, soap production had declined during the second quarter of the calendar year 1943 to a level below that permitted by WFO 42. As a result of this low production and many consumer runs on soap supplies, the situation as the fiscal year began was bad. Fortunately, during the summer it became possible to allocate to the soap industry substantial quantities of coconut oil, palm oil, soybean oil, and lard. As a result, soap production increased and by October 1 the inventories had begun to rise.

Besides the problem of supplying soap to civilians, there were problems of supplying it for war purposes. The armed forces were concerned primarily with obtaining enough of the particular grades they

require, and their requirements were met—although at the expense of civilian supplies of these particular grades.

The problem of getting enough soap for the rubber program lay chiefly in developing the specifications that would define the proper soap for producing maximum rubber yields with minimum quality variations in batches of rubber. Though this problem was not solved, from October 1943 until the end of the fiscal year an extensive research program was conducted by the Rubber Reserve Company, the Bureau of Agricultural and Industrial Chemistry, members of the soap and the rubber industries, and of the Office of Distribution.

The problem of supplying soap for relief purposes to the United Nations Relief and Rehabilitation Administration was a major one because the type of soap required was similar to that being supplied to the Army. When the year closed, substantial contracts had been placed, and investigations were being made of the possibility of substituting a slightly different type of soap for the UNRRA and so avoiding further disruption in civilian supplies.

Inedible Tallow and Grease

The inedible tallow and grease situation became so critical following the period of abnormally low animal slaughter in the spring of 1943 that the War Food Administration issued WFO 67, which limited all users of these fats in their inventories and provided a preferred position for certain industrial users in order to prevent the soap industry from cornering the supply. As a result, the industrial users' difficulties ended and an equitable distribution of the supply was assured. The inventory limitation was suspended after increased livestock slaughter during the winter and spring.

Drying Oils

With increased imports and a large domestic crop of flaxseed, the situation in drying oils improved materially during the year. War Food Order 42 controlled the use of all these oils in protective coatings, coated fabrics, and floor covering.

On July 1, 1943, manufacturers of such materials were permitted to use only as much of the oils as 50 percent of the average they used in 1940 and 1941. As the supply improved, however, this quota was raised to 60 percent in the second fiscal quarter and to 70 percent in the third and fourth quarters. Improved supply resulted also in the revocation of specific orders controlling the use or delivery of linseed oil, castor oil, and oiticica oil. Tung oil alone of the drying oils remained under specific control, and restrictions on its delivery (though not its use) also were lifted.

Fatty Acids

When the year began, a critical situation existed in the supply of fatty acids—particularly red oil, stearic acid, and the fatty acids derived from vegetable oil foots. WFO 53 restricted the use of red oil to persons with specific authorization to use it. WFO 87, which controlled consumers' inventories of fatty acids, was issued to provide equitable distribution of the available acids. As a result of these two orders, of decreased red oil requirements, and of the increased production of fatty acids derived from vegetable oil foots, the fatty acid situation improved considerably and it became possible to remove

red oil use restrictions. Moreover, the threat that stearic acid would be allocated was ended.

Wool Grease

As a result of war demands, wool grease was placed under allocation in September 1943. By the end of the year the supply was still substantially less than the unrestricted demand, although all essential requirements had been met because consumers' inventories had been controlled and the use of wool grease in the manufacture of cosmetics and soaps had been practically eliminated.

Miscellaneous Industrial Oils

During the year the red oil situation changed from one of short supply to one of satisfactory supply. The sperm oil situation improved materially as a result of a whaling expedition. Use of sperm oil continued to be restricted under WFO 37, although the restrictions had been greatly relaxed. Rapeseed oil and mustard seed oil were under allocation as provided by WFO 35. Late in the fiscal year continuation of controls on mustard seed oil was considered inadvisable, in view of its high price and small production. The rapeseed oil supply situation continued to be somewhat critical, owing to a rise in price in Argentina. As a result, there were few imports of this oil in the latter part of the fiscal year.

Fish oils were controlled by WFO 60, which was amended from time to time to modify the limitation on use of this oil. At the end of the year, after demand for fish oil had slacked, the order was revoked. The reduction in demand resulted primarily from the plentiful supplies of tallow and grease, whose price ceilings were lower than those for fish oils.

FRUITS AND VEGETABLES

FOOD ORDER ADMINISTRATION

As a result of the short 1943 apple crop, apples of the grades ordinarily processed began moving for fresh consumption, and processors could not get enough to meet military and civilian requirements of processed apple products. War Food Order 83, which restricted the sale of lower-grade apples except to authorized processors in certain counties and areas in Washington, Oregon, California, New York, Pennsylvania, West Virginia, Virginia, and Maryland and which became effective October 4, 1943, provided for the exemption, on application, of particular lots of apples which were unsuitable for processing or for which processing facilities were unavailable.

To make sure that all shippers in the Pacific Northwest would contribute their share of the fresh apples required by the armed services, WFO 88 was made effective on November 6, 1943. This order required each person owning 500 bushels or more of apples of the Extra Fancy or Fancy grade to set aside for Government purchase 15 percent of such apples. Under the order 2,930 carloads of apples were purchased. In addition, 498 cars were purchased before the effective date—a total of 3,428 carloads of apples furnished for the armed forces by the apple industry of the Pacific Northwest.

As the year began, the United States production of peaches for the season was estimated at only 43,042,000 bushels compared with 66,380,000 bushels in 1942. To enable processors to obtain supplies to

meet military and civilian requirements of processed peaches, three War Food Orders were made effective on the Pacific coast. WFO 64, effective July 16, 1943, prohibited shipment from California of all fresh clingstone peaches. WFO 73, effective August 7, prohibited the shipment of all fresh freestone peaches grown in California except the Elberta, Hale, and Rio Oso Gem varieties. WFO 74, effective August 9, limited the shipment of fresh Elberta peaches by any person from Washington and Oregon to 100 percent of such peaches shipped by that person during the 1942 season.

WFO 102, effective June 9, 1944, was issued to conserve labor and transportation by preventing the shipment of low-quality peaches from within Georgia to points outside. It required that 90 percent of each shipment meet the requirements of U. S. No. 2 Grade as respects decay, maturity, worms, and worm holes; allowed 1 percent for decay; required each shipment to be inspected by the Federal-State inspection service; and authorized the Director of Distribution to release given lots under specified conditions.

To assure enough pears for processing, WFO 65 was made effective July 22, 1943. It limited the shipment of fresh Bartlett and Hardy pears from California by any person during the 1943 season to 100 percent of the quantity he shipped for fresh consumption during the 1942 season, and from Washington and Oregon to 75 percent.

WFO 55, effective June 9, 1943, was issued to assure a suitable maturity in plums before they were shipped. Under it, no person might ship a package of fresh plums of which more than 10 percent of the contents failed to meet the requirements of U. S. No. 2 Grade.

WFO 69, effective July 28, 1943, was issued to insure the supply of fresh, dried, and processed fruits and berries for military and essential civilian needs. It prohibited the use of specified fruits and berries and specified grades of certain fruits for conversion into alcoholic products unless the particular lot was otherwise unfit for human consumption, or unless no other market was available.

Food Distribution Order 77 (later WFO 77), effective August 31, 1943, was issued in order to secure for the armed services supplies of both fresh and dehydrated onions. This order controlled the movement from the heavy producing "late" States, such as Colorado, Idaho, and Michigan. Under it were issued 27,502 permits to ship 728,252,000 pounds of onions. It was terminated on April 25, 1944.

WFO 82, effective October 2, 1943, was issued to meet military requirements of English walnuts and to conserve burlap and transportation. It required each shipper of English walnuts to set aside for shelling 10 percent of each shipment of merchantable nuts. Under the order, 81,190,000 pounds of merchantable 1943-crop walnuts were certified for shipment up to June 30, 1944, and an additional 8,687,000 pounds were set aside for shelling.

Throughout the year the OD administered WFO 22.4, the "set-aside" order for canned fruits, vegetables, and their juices (except citrus). Under it, approximately 18 million cases (basis No. 2½ cans) of fruit and approximately 50 million cases (basis No. 2 cans) of vegetables were obtained.

During the year the OD administered WFO 30, effective since March 21, 1943, to make maximum quantities of dehydrated vegetables (Irish potatoes, sweetpotatoes, cabbages, carrots, beets, onions, and

rutabagas) available to the Government. These commodities were allocated to claimants according to priority and urgency of need.

From October 12, 1943, when it was issued, until it was terminated on December 13, Food Distribution Order 84 gave Government purchasing agencies first call on all commercially produced kraut. Without this order, Government requirements would not have been met because the total 1943 kraut pack utilized only 95,000 tons of cabbage, whereas 70,000 tons were needed for Government requirements alone. The normal kraut pack before the war was about 160,000 tons.

In the United States, raisins are produced only in California. Production in 1943 amounted to 395,000 tons, compared with 254,000 tons in 1942. The increase resulted largely from the effectiveness of WFO 17, which required the drying of raisin-variety grapes, and from the construction of new dehydration plants. Effective since January 1943, WFO 17 provides that raisin-variety and Zante currant grapes produced in 8 designated counties in California be converted into raisins or Zante currants or sold to: (1) The OD, (2) any person designated by the Director of Distribution, or (3) any dehydrator for conversion into raisins or Zante currants. It also prohibited the use without authorization of raisins or Zante currants for conversion into alcohol, brandy, wine, or any other beverage, any concentrate, sirup, nonfood product, or nonfood byproduct.

WFO 80, effective September 20, 1943, restricted the sale in fresh market channels of Concord grapes grown in the five major producing areas of New York, Pennsylvania, Ohio, Michigan, and Washington. The order also required processors to set aside for allocation all the processed Concord grapes they owned.

WFO 3, effective since January 6, 1943, restricted the production and sale of concentrated citrus juices except for sale to Government agencies. Production of single-strength juices also was restricted to the quantities specified in War Production Board Order M-86. WFO 6 and WFO 6.1 required handlers of fresh citrus juice to set aside certain quantities of fresh fruits each week to assure adequate supplies to processors.

WFO 85, issued October 14, 1943, authorized restrictions on the handling and diversion of white grapefruit grown in three counties in Texas; the purpose was to retard shipments into fresh market channels before January 1, 1944, and thus to assure enough white grapefruit for processing and to provide a means of requiring handlers to set aside grapefruit for processing. WFO 85.1, issued on the same date, restricted shipments in fresh fruit channels between October 15 and January 1 to 20 percent of the quantity shipped during the 1942-43 season.

STANDARDIZATION

Adoption of Federal standards by processors as a basis for purchasing raw products for canning, manufacture, freezing, and dehydration continued to become more widespread. Rapid expansion in the dehydration of fruits and vegetables resulted in demands for standards to cover more products. During the year, United States standards for carrots, onions, and cabbage for processing were issued. The volume of inspections of raw products for processing decreased from 1,344,942 tons in 1942 to 972,606 tons in 1943. This decrease reflected the difficulty of getting competent inspectors, especially for tomatoes and grapes.

Continued progress was made during the year in illustrating grade requirements by means of painted plaster models and colored pictures. Paintings on opalescent glass, showing cross-sections of tomatoes, promise a practicable method of illustrating the border line for color in the grades for tomatoes for manufacture of strained tomato products.

Other work included development of sets of garlic models illustrating discoloration, new potato models illustrating growth cracks, and additional peanut models. Colored pictures are now used for carrots, celery, tomatoes, onions, pecans, and walnuts. In the hands of market inspectors and supervising inspectors at shipping points these models and pictures are valuable guides to correct grade interpretation, inasmuch as they illustrate grade factors which cannot be communicated adequately in language or plain photographs. United States standards were issued for eastern-type bunch grapes for processing. Standards for broccoli, citrus fruits, eastern-type bunch grapes, unshelled pecans, and tomato plants were revised.

United States standards for 64 different products have been issued. Since 2 or more standards are necessary for some products, owing to differences in type and use, a total of 109 sets of standards have been issued. This total includes 93 standards for 62 different fresh fruits and vegetables, and 16 standards for 7 other products not classed as fruits or vegetables.

During the year, investigations were completed for establishing U. S. standards for beets and rutabagas for processing. Continued were investigations aimed at obtaining information for the revision of United States standards for carrots, northern-grown onions, sweetpotatoes, shelled Spanish and shelled Runner peanuts, and farmers' stock peanuts. United States standards have been requested also for squash, sweetpotatoes for processing, coconuts, raspberries for processing, sweet cherries for processing, parsnips, avocados, cranberries, and bananas.

Among the processed fruits and vegetables, 75 United States standards for grades were in effect at the end of the year. Of this number, 51 were for canned fruits and vegetables, 7 for dried fruits and vegetables, 11 for frozen fruits and vegetables, and 6 for barreled and miscellaneous commodities—an increase of 3 standards during the year. In addition, 8 United States standards for grades were revised. Four special WFA specifications were issued, 3 being for dehydrated products and the other for a canned commodity.

INSPECTION

During the year, 555,042 cars, or carlot equivalents, of fresh fruits and vegetables were inspected at shipping points and 29,737 in receiving markets. Total of receiving-point inspections increased from 39,691 to 41,664. This was an increase of 66,224 carlot inspections at shipping points and a decrease of 1,957 in receiving markets. Since loadings of cars continued to run approximately 15 percent heavier than normal, the total volume inspected in terms of carlot equivalents was proportionately greater than for corresponding numbers of cars before 1942.

A considerable percentage of commercial inspections at shipping points was made for growers or shippers who based their sales to

the armed forces on inspection certificates. Marketing programs administered by the Office of Distribution also accounted for a large number of inspections. The volume of inspections for Government agencies, particularly the Navy, Quartermaster Corps, and the War Shipping Administration, increased materially. Total inspections for such agencies amounted to 50,248 carlot equivalents, compared with 33,634 last year.

Inspections of raw products delivered at canning plants decreased by about 370,000 tons from last year, the total being 972,606. Under the peanut marketing program of the Commodity Credit Corporation, the Office of Distribution supervised inspection of all farmers' stock peanuts of the 1943 crop, a total of 882,931 tons.

A special agreement was continued with the Railroad Perishable Inspection Agency to inspect reconditioned packages in dispute between receiver and carrier in a few large markets.

During the year, 260 appeal inspections were made of cars inspected at shipping points, and 207 certificates were reversed as to grade on such important factors as size, condition of pack, and percentage of color. This was a reversal in receiving markets of 1 certificate out of 2,609 issued at shipping points. In receiving markets, certificates covering 4 carlots were reversed out of a total of 24 appeal inspections of cars which had been inspected previously in receiving markets.

Canning and allied distributive industries used the inspection service increasingly during the year. The Office of Price Administration required that the grade of all canned fruits and vegetables which these industries sold be stated on sales invoices in terms of the grades of the United States Department of Agriculture. A large number of canners requested the inspectors to certify the grades of many of the lots thus invoiced. A large number of packers, also, had their entire pack graded, and chain stores and wholesale grocers used the service extensively.

Fifty-six companies with 78 plants operated under continuous factory inspection during the year. Despite a slight decrease in the number of plants so operating, the volume of case goods, exclusive of bulk goods in cartons, barrels, and gallon containers, increased by 24.2 percent. Although no attempt was made to expand this type of inspection to the industry because of the shortage of inspectors, it was evident that many canners are interested in it.

Frozen fruits and vegetables were inspected in very large volume.

Individual trust-fund agreements, necessary for setting up trust-fund accounts into which commercial inspection fees are deposited and from which salaries and expenses are paid, were in effect at the end of the year with 30 States or cooperating agencies. Inspections of purchases made by other Federal agencies are handled under a national trust-fund agreement.

REGULATION

Perishable Agricultural Commodities Act

In the enforcement of the Perishable Agricultural Commodities Act, 5,301 new licenses were issued, an increase of 366 over last year; 705 fewer licenses were terminated because of business discontinuance or change of name or organization. At the end of the year 19,305 licenses

were in effect, an increase of 671 and the most in effect since October 1942. License fees received amounted to \$212,266.20, an increase for the year of \$16,314.14 and the largest amount received during any fiscal year since the law was enacted in 1930. Collected arrearage fees increased over the previous year from \$8,328.01 to \$17,478.59, or 110 percent.

In all, 2,058 complaints were received of alleged violations of the act, an increase of 169. Personal investigations of complaints numbered 568, an increase of 164. Informal amicable settlements of 900 complaints were reached, a decrease of 130 from the preceding year, but payments made as the result of amicable settlements amounted to \$938,120.84, an increase of 55 percent. On the other hand, 83 formal decisions were rendered, a decrease of 33 percent; this number represented reparation awards totaling \$41,314.30. One license was revoked, 6 were suspended from 30 to 90 days, and 3 were suspended automatically because of nonpayment of reparation awards.

Produce Agency Act

Under the Produce Agency Act only 10 complaints were recorded, compared with 33 during the preceding year. Only 4 complaints were personally investigated, as against 15 in 1943, and there was 1 Federal court conviction, as against none in 1943. The decline occurred because all transactions involving apparent violations were handled under the Perishable Agricultural Commodities Act, whereas the only ones handled under the Produce Agency Act related to dairy and poultry products sold on consignment. The two acts are enforced by the same personnel.

Standard Container Acts

In enforcement of the Standard Container Acts of 1916 and 1928, visits were made to 74 factories representing a 28-percent coverage of factories, compared with 18 percent in 1942. Approximately 262 factories located in 33 States make approximately 1,202 different sizes and types of baskets. Including field and laboratory tests, 1 or more lots of baskets were tested for 94 of these factories.

Received in the Washington laboratory for testing were 157 lots of sample containers, of which 107 were satisfactory and 50 were not; laboratory tests were made of 459 samples. Of 35 baskets requiring correction, 18 were corrected during the year. In tests made at factories or conducted at the OD office in Los Angeles, 13 of 117 lots were found to be unsatisfactory. Five of the 13 baskets requiring correction were brought up to standard. Two 1-pound paper-board baskets were authorized for the duration because the 1-pound wooden baskets authorized by amendments to the 1916 act were practically unavailable.

Extensive studies and computations were made with the aim of correcting and revising the specifications for square braid and slab splint baskets, formerly set forth in the regulations. Specifications for baskets, forms, and material were developed.

MARKETING-AGREEMENT PROGRAMS

For citrus, 4 marketing-agreement programs were in effect during the year, including an estimated 48,000 growers of citrus in market-

ing-program areas and the equivalent on-tree value of the citrus they grow for fresh use estimated at about \$180,000,000.

As for deciduous fruits, prices of all of them were above parity because of the extremely small crops produced in 1943. In consequence, the regulatory provisions of the marketing agreement and order program could not be invoked.

The deciduous-fruit agreements cover California fresh Bartlett pears, plums, and Elberta peaches; Oregon, Washington, and California winter pears; California Tokay grapes; Georgia peaches; Oregon and Washington fresh prunes; California hardy pears; Colorado peaches; and Utah peaches.

For vegetables, four marketing agreements still in existence were not in operation during the year because prices were either above parity or were expected to exceed parity during the season. Operation of the English walnut agreement in California, Oregon, and Washington was discontinued because above-parity prices were anticipated.

The marketing-agreement program which regulated the handling or sale of hops produced in California, Oregon, Washington, and Idaho was suspended during the 1943-44 marketing season.

DIVERSION

To encourage use of the record southern winter cabbage crop by northern kraut packers, diversion-program payments were made to packers to defray a part of the costs of transportation between southern producing areas and their plants. Payments were on a bid basis and were necessary because price ceilings on kraut made it impossible for most packers to bear all the transportation costs and yet sell the finished product within kraut ceilings. Packers were required to pay growers a minimum of \$15 a ton f. o. b. bulk basis for cabbage. More than 2,700 tons of cabbage were moved. Packers not under the program used several times this quantity as a result of the unprecedented interest the program stimulated.

Another diversion program, moving 2,800 tons of carrots at a cost to the Government of \$28,272, utilized a large surplus in the Imperial Valley of California that would have gone to waste. The program also helped southern California livestock feeders to meet a feed shortage. Most of the participants were dairies in the Los Angeles area. The carrots were shipped and consumed in fresh form by livestock.

RESEARCH

During the year the Office of Distribution did considerable research aimed at better utilization of the capacity of existing containers for processed fruits and vegetables. Exhaustive tests were made of packing dehydrated vegetables in inert gas in 5-gallon cans, with resulting improvement in can manufacture and methods of replacing air with gas to prolong the storage life of the product.

Studies were made also of the effect on containers of certain processes used in the manufacture of various processed fruit and vegetable products. Other studies of drained weights for canned fruits and vegetables were continued. OD inspectors assisted dehydrators in Cuba, Argentina, and several colonies in Africa to develop satisfactory methods for dehydrating vegetables and packing them properly.

MARKET NEWS

During the fiscal year 1944, 19 permanent fruit and vegetable market offices and 39 temporary shipping-point offices were maintained for periods of 3 or 4 weeks to 9 months. Marketing information was distributed to 18 of the permanent offices and 5 of the temporary offices over approximately 8,500 miles of leased wire. The Los Angeles office and 2 temporary offices in California were served by that State's short-wave radio. The other temporary offices and the New Orleans permanent office were served by commercial telegraph from strategically located offices on the leased wire. A total of 8,929,000 mimeographed market reports were mailed to about 60,000 persons and firms. Sixteen permanent market news offices and a few temporary offices furnished radio information for producers over approximately 235 stations.

At the permanent offices, technical news men covered the produce trade during active trading hours for complete, detailed, up-to-date news on supplies, demands, trading, quality and condition, market trends, and prices of all important fruits and vegetables. Each day the office clerical force recorded the number of cars held on track that morning and also the carlot, boat, and express receipts by State of origin, diversions, and unloads of the previous 24 hours. In 10 cities truck receipts were recorded and reduced to carlot equivalents. In 4 cities truck receipts were collected under cooperative agreement with the States.

This information was consolidated into a daily mimeographed report which also showed carlot shipments of the important fruits and vegetables by States of origin during the previous day, f. o. b. reports from shipping areas where offices were maintained, and in some offices limited information on conditions in other city markets. Similar kinds of reports issued by the temporary field offices differed in that they covered only the commodities marketed from the local shipping area. Information on local receipts and track holdings, market tone, and prices was sent over the leased wire in code for use in shipping areas and other market offices. A report prepared in and wired from Washington showed total arrivals and track holdings of important commodities in 16 important markets. Monthly and annual carlot unload reports, published at all permanent offices, showed carlot, express, and boat unloads, and such truck receipts as were obtained.

In 15 States, expanded service was maintained at temporary offices as a result of cooperation by the State. In 8 States, Federal-State offices were in year-round operation.

The Washington office published weekly peanut and semimonthly honey news reports. The peanut report, covering prices, a résumé of crop conditions in important shipping areas, and terminal market conditions, was mailed to approximately 1,400 persons and firms. The honey report, with similar information about beekeeping and honey, went to a mailing list of about 2,800.

Shipments for the entire country of 46 fruits and vegetables during each 24 hours were reported to Washington by telegraph and relayed to all permanent offices and temporary field offices. Shipments of 855,660 carloads of fresh fruits and vegetables by rail and boat were reported during the 1943 calendar year. Also released was a weekly comparative summary of carlot shipments and an annual summary of

shipments by commodities, States, and months. While temporary offices were in operation, truck movements were reported for Georgia peaches, North Carolina strawberries, Del-Mar-Va strawberries, and Michigan fruits and certain vegetables.

GRAIN PRODUCTS

FOOD ORDER ADMINISTRATION

In the field of grain, grain products, and similar commodities, the administration of several important food orders (bakery products, corn, rice, beans and peas, and pet foods), the work to expand United States production and the purchase and distribution of grain, grain products, rice, beans, peas, and seeds were continued. Also continued were the administration of the U. S. Grain Standards Act, the Federal Seed Act, the inspection of rice, hay, beans, peas, and other products, and market news.

That part of War Food Order 1 that prohibited the consignment selling of all bakery products caused the conservation of tremendous quantities of food and helped to hold down the price of bread during the fiscal year.

Because corn processors could not obtain enough commercial corn as raw material, the production of cornstarch, corn grits, dextrines, and other badly needed refined corn products was greatly curtailed in March 1944. WFO 96, effective March 25, required operators of country and terminal grain elevators located in 124 designated counties in 5 Corn Belt States to set aside 35 percent—and beginning April 1, 60 percent—of all the yellow and mixed corn they owned or might receive. This corn was subject to allocation to designated corn purchasers for manufacture of the required corn products.

On April 25, WFO 96 was superseded by WFO 98, which, with companion orders issued by the Interstate Commerce Commission and the Office of Defense Transportation, prevented the sale or movement of corn within the 125 counties except as authorized and directed by the Agricultural Adjustment Agency and the Commodity Credit Corporation. After enough corn had been obtained, WFO 98 was allowed to expire on June 24, 1944, and WFO 103 was issued to control the corn that had been set aside.

WFO 10 was issued in January 1943 to provide rice needed by Government agencies and a fair distribution among civilians of the remaining supplies. In July 1943, under an amendment which covered milling and the marketing of the 1943 crop, rice millers were required to set aside enough of the acceptable grades to equal 45 percent of the total milled rice produced. Because of an unexpectedly large crop, heavy millings occurred in the fall of 1943. Government requirements decreased slightly; moreover, Government agencies moved the rice more slowly than it was being set aside. As a result, the set-aside requirement was suspended during November. On May 15, 1944, after enough milled rice had been set aside to meet adjusted Government requirements, the restriction was suspended until July 31 of that year.

WFO 45, effective from April 1, 1943, required the setting aside of beans and peas. As a result of large production of both commodities, on November 1 the order restrictions were revoked as to peas and reduced as to beans.

Further reduction in the amount of six of the classes of beans required to be set aside was made on April 1. At the year's end country shippers were required to set aside a fourth as much beans of six classes as they were delivering into civilian channels and an amount of beans of six other classes equal to that delivered into civilian channels.

The purpose of WFO 58, covering manufacture and distribution of pet foods, was to conserve both animal and vegetable protein for the feeding of livestock. On February 29, 1944, after 8 months of trial, it was revoked because the results did not justify its continuance.

SEED-PRODUCTION PROGRAM

United States requirements for vegetable seeds plus those of her allies were several times greater than the quantity the United States produced before the war. Usual European sources of seed supply had been cut off from the United Nations. Competition in the production of food itself made an increase in vegetable-seed production very difficult.

In the United States the seed trade cooperated with the OD, production short cuts were studied, and additional potential seed-producing areas were checked. Support prices were established for some critical seeds. Several of the most critical vegetable-seed crops require 2 years to produce, and established seed goals were not approached until during the 1944 fiscal year.

Seeds supplied under the OD program have produced enormous crops of vegetables in Russia, the United Kingdom, North Africa, Italy, and on islands in the Southwest Pacific.

SOYA PRODUCTS

Wartime demand for protein foods resulted in continued interest in soybean products. Edible soya flour and soya grits, though readily assimilated by the human system, are so rich in proteins in consolidated form that they can be used best when mixed with other foods.

Under Government sponsorship, production of soya flour and soya grits, slight before the war, was at the annual rate of about a billion and a half pounds of the products by December 1943.

STANDARDIZATION

All but currently necessary standardization research was shelved during the year. Standards were established for unpolished milled rice as a result of increased consumer demand. Federal standards for hay and straw were studied and proposed revisions were prepared. Standards for peanut hay were issued. The OD cooperated with the provisions committee of the Federal specifications executive committee in formulating new Federal specifications and revising existing ones for various grain products and rice.

With the Bureau of Plant Industry, Soils, and Agricultural Engineering, the OD tested physically and chemically about 450 samples of experimentally grown wheat of the White and Hard Red Spring classes. As a part of the same broad wheat-breeding program, whose aim is to develop superior varieties for the various wheat-growing areas of the country, about 150 samples of experimentally grown durum wheat were milled into semolina, and disk color tests were

made so as to measure the potential quality of the wheat in the production of macaroni products.

INSPECTION

Inspection of rice, beans, peas, and hay expanded with increased Government purchases. During the year the inspection service for beans and peas was extended to 5 additional terminal markets to accommodate inspections before delivery to the armed forces. Inspections of beans and peas totaled 34,536 covering 23,248,000 100-pound bags, as against the previous record of 21,047 inspections in 1943.

Complete rice inspection service was continued in Texas, Louisiana, Arkansas, and California. Sampling service, with the actual inspection made in New Orleans or San Francisco, was available in nearly every important market in the United States. Rice inspections totaled nearly 13,000,000 bags, about a third more than the previous year. Rice inspection certificates totaled 15,573, covering 11,712 lot inspections, 2,291 sample inspections, and 1,570 inspections for origin. Most inspections covered milled rice.

Requests for hay inspections increased. In California, hay inspections more than tripled those of any previous year. A Federal-State hay-inspection service was inaugurated in Utah. The total quantity inspected in the United States was above 500,000 tons, or about twice the hay inspected in 1943.

Inspections To Determine Conformity With Contract Specifications

Grain, beans, peas, hay, and rice usually are bought according to specified grades. The inspections are made either by licensed or Federal inspectors who perform similar inspections on the same commodities under the same standards for commercial transactions in these commodities. Official standards have not been established for flour, numerous cereal products, vegetable oils, shortening, vitamins, seeds, and many other commodities bought by the OD.

Purchases are based on specifications written into the contract, and the goods offered for delivery must be inspected and tested to determine whether they meet the specifications. In the fiscal year 1942 a system was set up for testing and inspecting Government purchases only.

In 1943 about 28,000 lots of these numerous commodities were inspected; in 1944 not only the commodities themselves but also their packaging and marking specifications were inspected on 32,000 lots bought by the OD, the Army, the Navy, and other Government agencies. This new service utilized the facilities of 54 of the district offices of OD's Grain Products Branch. Analysis of the various commodities involved many chemical, physical, and germination problems.

Vitamin Testing

During the past 3 years great strides have been made in developing methods, apparatus, and a technique of testing various products for vitamin potency. During 1944 a testing laboratory set up at Beltsville, Md., performed all tests required in the inspection of more than \$7,000,000 worth of vitamins and vitamin products bought by the OD.

In addition, the laboratory made approximately 700 tests on flour, breakfast cereals, and yeast to determine whether vitamin enrichment

was up to specifications. Tested also were more than 650 loaves of commercial bread to determine compliance by bakers with the enrichment requirements of WFO 1.

REGULATION

Federal Seed Act

During the year, its fifth, the new Federal Seed Act was administered by the OD in cooperation with 46 States. The act regulates the interstate movement and importations of seeds.

Inspection, investigation, and formal action were confined chiefly to cases seriously harmful to agricultural production. All 25 of the criminal actions begun during the year against violators were successfully terminated. Seed inspection was somewhat reduced because of personnel shortages.

Importations of agricultural seed increased. The 62,300,000 pounds of field seed imported was a considerably larger quantity than pre-war importations subject to the act. The year's importations came primarily from Canada, New Zealand, Australia, Mexico, and Argentina. Vegetable-seed importations ran slightly above 2,250,000 pounds, the first annual increase since the war began.

The seed trade concurred in the OD's recommendations of the planting of adapted varieties and the selling of seed under variety names. State seed officials were considering the adoption of a requirement that agricultural as well as vegetable seed be labeled as to variety. Seed classes were held at Beltsville, Md., and at the five Federal-State laboratories for the benefit of seed analysts engaged in this work.

The seed verification service, which verifies the origin of alfalfa and clover seeds, was continued. About 9 percent more alfalfa and red clover seeds were verified as to origin than in 1943. The seed dockage inspection service, under which uncleaned timothy and sweet-clover seeds are analyzed and certified, was conducted during the year in the North Central States to provide growers and shippers of these seeds with unbiased analyses.

United States Grain Standards Act

During the year licensed inspectors made nearly 2 million inspections of approximately $3\frac{1}{4}$ billion bushels of grain. This quantity exceeded the grain inspected the year before by about 400 million bushels, that of 1942 by a billion bushels, and that of 1941 by a billion and a third.

Appeals were filed on only 2.4 percent of the inspections. This was a satisfactorily low percentage considering wartime conditions, and came about as a result of a centralized control directed from the general field headquarters at Chicago, many years' experience, careful training of the Federal grain supervisors, quick concentration on special grading problems, and regular checking of all inspection equipment and methods.

MARKET NEWS

The market news service, which continued to provide farmers, feeders, and others with unbiased, timely information, issued 811 market reviews covering supplies and prices of grain, hay, feed, rice, hops, and beans. Prices during the year for most of these commodities

were at or near the maximum established by the Office of Price Administration. Basic market information on grain and kindred products not available from other sources was furnished to the Bureau of Labor Statistics and to many cooperative producing and distributing associations.

Wheat Export Program

Wheat and wheat-flour export programs were begun several years ago in order to preserve foreign markets for American growers and processors. During the fiscal year 1944 the relatively tight supply of wheat made continuance of a wheat-export program undesirable.

A wheat flour export program, the result of an agreement with the Government of Cuba, was begun on March 30, 1944. It provided that Cuba would sell sugar to the United States at a specified price. In return, the United States was to make wheat flour and certain other commodities available to Cuban importers during 1944 at stabilized prices. The OD program provided for payment to American exporters who sold and delivered wheat flour in accordance with OD regulations to Cuban importers on the basis of guaranteed price. The rate of payment, first set at \$1.25 a hundred pounds, was later increased to \$1.45. Total sales ran to 96,733,304 pounds of flour made of over 2 million bushels of wheat.

INSECTICIDES

Purpose of the Insecticide Act is to protect farmers, livestock growers, and other users of insecticides and fungicides against losses resulting from the use of adulterated or misbranded products. During the year, certain standard insecticide materials have been lacking. For example, much of the available arsenic was low in grade and required special care. Practically all our pyrethrum has been taken by the armed forces, and the reduced amount of rotenone-bearing materials had to be reserved for special crops. Despite these obstacles, the year's larger and more valuable crops required more insecticides and fungicides than ever before.

Weaker dosages of insecticides were recommended for some uses—spreading the supply but reducing the margin of safety—and effective substitutes were improvised wherever feasible.

During the year, 2,006 official samples of insecticides and fungicides were tested by the OD. Of these, 401 failed to comply with requirements. Violations in 342 cases, or about 17 percent, were sufficiently serious to justify action; whereas 59 less serious violations were adjusted informally.

Fourteen seizures involving 12 different products were begun, and 38 criminal cases involving 30 products were submitted for prosecution. Forty-five criminal cases covering 34 different products were adjudicated. All cases ended in favor of the Government, and fines aggregating \$4,594 were assessed against the defendant.

Products seized included: Chlorine-containing disinfectants, commonly used for the sanitary treatment of dairy equipment, which were too weak to disinfect; an oil-emulsion orchard spray which was largely water; and a household fly-spray type of insecticide which was worthless.

The development of new insecticides and fungicides, and the shortages of standard raw materials for which substitutes must be used,

have resulted in repeated changes in the compositions of commercial products. Sometimes three or four different formulas are used for the same proprietary preparation within a single year. To protect the user, new methods of analyzing and testing these products as they come on the market must be developed constantly.

Quantitative methods for the determination of organic thiocyanates in oil sprays and in insecticidal dusts are now in use. The method generally used for determining pyrethrin I in insecticides was found to be incorrect and was revised. A study was made of pyrethrin I in the presence of commercial organic thiocyanates used as substitutes for pyrethrum extract, and a method was devised to determine it in the presence of one of them. Revised methods for determining the sulfur in dusting mixtures were developed.

Some liquid insecticides containing synthetic toxic agents have been found to be as effective against flies as those containing pyrethrum, but they are less effective against roaches. As a result of this finding, manufacturers are being required to revise their claims or to change their formulas so that their products will come up to their claims.

Work was continued on various types of insoluble copper fungicides. Further studies demonstrated limitations on the use of basic copper sulfate in some locations. While it had given good results in the East, it had not been found so effective against peach leaf curl under some conditions in Oregon. Other tests on some of the newer types of seed disinfectants were continued.

Because during the year so many synthetic products were marketed—products for which adequate testing methods were not available—investigational work on more uniform and standardized methods for their evaluation became necessary.

A search was made for a culture medium having a relatively non-specific effect upon one or more of the current types of germicide. These studies included work on conventional peptone, vegetable peptones, and other protein degradation products. In collaboration with others, a study was made of methods of testing compounds for combating fungi which cause so-called athlete's foot, and a standardized method for testing such products was recommended.

LIVESTOCK, MEATS, AND WOOL

FOOD ORDER ADMINISTRATION

During the year five food orders were administered for livestock and meats.

FDO 75 (later WFO 75), issued August 15, 1943, provided for a system of licensing of all slaughterers who formerly had been required to register under FDO 61 and to obtain permits under FDO 27, both of which it superseded. It also superseded FDO 28, which had required packers to set aside for delivery to Federal procurement agencies a certain percentage of certain types of meat. The new order contained other basic provisions, including the set-aside requirement and a requirement that packers pay a support price for Good and Choice hogs of certain weights.

Under FDO 61, in force until August 15, 1943, were registered approximately 600 slaughterers whose deliveries exceeded 2 million pounds. The OD passed on slaughterers' requests for quota adjust-

ments, and in some cases granted quotas on condition that the slaughterers deliver meat to deficit areas.

Permits were issued to slaughterers under FDO 27 at the time it became effective by the county war meats committees. In many instances applicants had been assigned quota bases that exceeded the quota bases to which they were entitled, and at the beginning of the fiscal year analysis of the evidence submitted by these applicants to determine their proper quota bases was under way. This work continued until August 15.

FDO 75 (later WFO 75) covered all slaughterers and was designed to provide full control over the slaughter industry. Providing for issuance of licenses to slaughterers formerly subject to FDO 27 and FDO 61, it included the over-all authority under which FDO 75.1, covering the restriction of slaughter through quotas, and FDO 75.2, requiring beef to be set aside, were issued. After it became effective on August 15, 1943, licenses were issued and proper quota bases were assigned to all persons entitled to them.

FDO 75.1 provided for the control of slaughter by restricting the slaughter of each licensee. Under it, the quantity of meat allowed to be slaughtered was a percentage of the slaughter by the licensee during the 1941 base period. With the heavy cattle and hog run in the fall of 1943, meat supplies became ample and it appeared that slaughtering facilities would be taxed to the limit. As a result, the restriction on slaughter provided by the order was suspended on September 1.

Under FDO 75.2 all class 1 and class 2 slaughterers whose slaughter exceeded 51 head of cattle of the type which produced Army-style beef were required to set aside a certain percentage of it for purchase by the armed services, the War Shipping Administration, and certain other Federal procurement agencies.

In the beginning, this "set-aside" amounted to 45 percent of the conversion weight of each week's production of beef obtained from the slaughter of steers and heifers whose carcasses met Army specifications. This percentage, changed several times during the year, was set at 35 percent on May 15, 1944. The order also required a high percentage of the beef set aside to be boned according to Army specifications.

ORDERLY MARKETING PROGRAM

FDO 75 contained a provision under which class 1 and class 2 slaughterers were to pay support prices for Good and Choice butcher hogs of prescribed weights. In general, the support price was based on a margin below the maximum price for each area as prescribed by the Office of Price Administration.

By the end of the 1943-44 marketing season, roughly 92 million head of hogs had been made into about 13 billion pounds of pork. The approximate total number to be slaughtered during the season in federally inspected packing plants, nonfederally inspected plants, retail establishments, and on farms represented about 75 percent of the total hog production in 1943—an all-time record of 122 million head. Of this number, increased numbers on farms at the end of the fiscal year 1944—less death losses—accounted for some 30 million head.

The 1943 production by American farmers of 122 million hogs was no accident. Before Pearl Harbor, farmers were advised to increase production in the spring of 1941, and each year thereafter new records were marked up.

Farmers kept more than 12 million brood sows to farrow in the spring of 1943. The result was 74 million pigs—22 percent more than the record spring pig crop of 1942 and 57 percent more than the average for the pre-war years 1935–39. The fall pig crop yielded another 48 million.

Turning 122 million pigs—or even 92 million—into pork means more than simply pushing buttons and turning handles. Recognizing some of the things that might happen when the pig crop started to come in, the War Food Administration launched a program early in the fall of 1943 to encourage the orderly marketing of hogs. At each principal market a committee composed of representatives of the market agencies, packers, buyers, and stockyard companies was formed. These committees operated voluntarily, the aim being to arrange for the marketing of hogs as fast as processing facilities could handle them and to prevent the arrival of hogs at markets where they could not be handled in a reasonable time.

The committees furnished information to their trade territories on market conditions. At several large markets and at most of the interior packing plants, a permit system was set up which enabled producers and shippers to obtain permits for the delivery of hogs to the market or to plants. WFA also furnished a special wire service which carried market information daily to each principal market.

War Meat Board

When the War Meat Board began work in May 1943, the impression got around in some quarters that it was to be a superpowerful organization with authority to issue orders on any phase of the meat problem, from production control to consumer rationing.

Actually, the board was an advisory body, set up to gather facts about supply and demand, and to make recommendations based on these facts to action agencies. It was hoped that the board would become a “nerve center” for the wartime meat industry, and it did.

On the supply side, the board kept a finger on the pulse of production through weekly and monthly reports from the industry. Its members, besides WFA representatives, included consultants on beef, pork, small stock, and canned meats. To insure representation of people and agencies that wanted meat, the board membership included specialists from the armed forces, the Office of Price Administration, and WFA.

At each meeting, the board received information on the total amount of meat production during the preceding week and a break-down by types of meat and regional production. This information, the best measure of meat production on a weekly basis that had ever been compiled in the United States, was the result of voluntary cooperation by all classes of slaughterers. Together with reports from various “demand” agencies, it provided the board with a basis for its recommendations.

STANDARDIZATION

Livestock and Meats

During the year a special study, aimed at correlation of prices and grades of feeder cattle at several major markets, was made. The OD continued to cooperate with the Bureau of Animal Industry by grading all the experimental livestock produced and all the carcasses of animals slaughtered in the meats laboratory at the Beltsville (Maryland) Research Center.

A rather exhaustive study was made of data on experimental hogs slaughtered at that laboratory in order to develop an objective procedure for grading hog carcasses. The grade of a hog carcass is determined largely by the proportion of the various cuts obtainable and their desirability. Obviously, the highest grade is that which will yield the greatest proportion of high-priced cuts, provided a high degree of desirability in other respects also is maintained.

Studies were made to determine the characteristics distinguishing spring lamb from lamb, lamb from yearling, and yearling from mutton.

Correlation studies between cattle and beef within grades were conducted at several midwestern livestock markets. Experimental activities involving live animals and carcass grading were conducted in cooperation with the Research Center at Beltsville and with several State agricultural experiment stations.

The OD continued to spread information about the official grade standards for livestock and meat by means of bulletins, circulars, and posters, and by holding actual grade demonstrations, usually in cooperation with livestock shows, producers' organizations, and livestock marketing agencies.

Wool

The four major lines of wool standardization and research—studies of wool shrinkage, fleece branding, wool and mohair standardization, and appraisal of wools under WFO 50—were continued.

The purpose of the Office of Distribution's continuing wool shrinkage studies has been to develop a test which would give producers dependable information about the shrinkage of their wool clips prior to marketing so that they might receive more equitable values. In this work other Federal agencies, experiment stations, and various woolen mills have cooperated with the Office of Distribution.

Under WFO 50, effective April 25, 1943, the Commodity Credit Corporation became the sole purchaser (with certain exceptions) of domestic wool. In actual practice fully 90 percent of the domestic production is sold "in the grease" on the basis of clean-wool content, and if the wool is to be valued properly its shrinkage must be determined by skilled appraisers. Because visual appraisal of wool requires many years of experience, private industry was called upon to provide most of the necessary personnel.

In general, the investigational work conducted during the year consisted of core-sampling small lots (generally 10 bags) of domestic wool and determining the shrinkage of the core samples in the laboratory and of the small lots in commercial scouring plants. The

results of the core-sampling were compared against the mill results of the lots and against the estimates of shrinkage placed on most of them at the time they were appraised under the 1943 wool purchase and appraisal program.

The appraiser's method of estimation gave results which differed from the actual shrinkages within a range running from a maximum overestimate of 9.4 percent to a maximum underestimate of 10.7 percent, with an average error of 2.82 percent; whereas, the core-sampling method gave results ranging from 3.8 percent overshrinkage to 4.4 percent undershrinkage, with an average error of only 1.17 percent. Thus, when the corrected commercial test was used as a standard, core-sampling was more than twice as accurate as the estimating method. Other experiments were aimed at eliminating the need for compressing the wool bags during core-sampling, and increasing the efficiency of the sampling method. The agricultural experiment stations of Texas, Wyoming, and Montana cooperated in the work.

When sheep are run under range conditions, producers mark them with a readily distinguishable brand for identification purposes. At present, a number of very harmful substances are being used for branding; manufacturers report that damage from insoluble branding fluids cannot be fully eliminated, and that heavy losses result from the use by wool growers of tar products which stain finished fabrics. During the year, laboratory work was done toward developing a durable and scourable sheep-branding mixture. Progress was made, but further work is necessary.

Practical forms of the official wool standards and wool-top standards, and paper wedge scales for measuring wool fibers, were distributed widely.

Research in progress included: Micromasurement and photomicrographic studies of wool top and grease wool for purposes of procurement and supply replenishment; micromasurement studies of coarser grades of wool top, in cooperation with one Government laboratory and two industrial laboratories, aimed at defining these grades in terms of their measurement specifications; and cooperative work with other Government agencies and the industry on the lower grades of wool with the object of determining their fineness characteristics and their description and definition in terms of these characteristics.

In general, the 1943 plan of regional organization was followed. Regional or area offices were established in Boston, Chicago, Denver, Philadelphia, Portland, Oreg., and San Angelo, Tex., with a branch at San Francisco. From 1943 production these offices together handled wool tonnage as follows: Greasy shorn, 227,221,030; scoured shorn, 2,891,511; pulled greasy and scoured, 34,592,745; miscellaneous, 454,611; or a total of 265,159,897 tons. It is estimated that this tonnage involved the appraisal of some 45,000 individual lots of shorn and pulled wool.

As a result of experience gained from the appraisal of the 1943 production, certain inequities and overvaluation of inferior wools were uncovered. To correct these and to insure full value to growers of the best wools, a new price schedule was drawn up and new

terminology and descriptions by classes were set up. This was submitted to representative wool producers, and approved by them and OPA.

MEAT INSPECTION

Activities of the meat inspection service during the year reached an all-time high. Although the number of animals slaughtered and the volume of meat and meat-food products inspected broke records in 1943, these activities increased during 1944 by 23.71 percent and 17.63 percent, respectively. Inspections were conducted at 944 establishments located in 363 cities and towns.

The volume of meat and meat food products examined for condition and conformance to specifications for other Government agencies also reached a record high.

Meat inspections of the OD (not including reinspections and certifications of meat and meat food products for export shipment and examinations of foreign meat and meat products at ports of entry throughout the year) are summarized in tables 8 to 15.

Examinations of 29,378 samples of meat, meat-food products, and ingredients and substances used in their preparation were made in 7 meat-inspection laboratories during the year. Of this number, adverse findings were made of 3,643 samples—a considerably smaller percentage of such findings than were made during the previous year.

Approval was given of 11,538 new labels for use at inspected establishments and of 110 labels for meat and meat-food products intended for importation. Because they did not comply with labeling requirements, 1,842 sketches and labels were returned without approval.

The OD received 561 sets of drawings and specifications of projects for new or remodeled structures or for major installations of equipment.

At the close of the year, 449 slaughtering establishments (with or without meat processing), and 415 establishments engaged in meat processing only were federally inspected. Also under inspection were 21 establishments that slaughtered cattle only, for Army-style beef, and 23 that prepared fresh boneless meat under specifications for Government agencies. The dehydration of meat for lend-lease and military agencies, which had begun during the preceding year, was continued at a number of official establishments with a somewhat increased volume.

Forty-seven certificates of exemption from inspection were issued to retail butchers and dealers, and 219 were canceled. Certificates outstanding at the year's close numbered 429.

(Data on meat and meat-food products certified for export, and on inspection of meat and meat-food products offered for entry into the United States, are still being compiled, as before the war, but their publication is necessarily withheld.)

TABLE 8.—*Ante mortem and post mortem inspections of animals, fiscal year 1944*

Kind of animal	Ante mortem inspection				Post mortem inspection		
	Passed	Sus- pected ¹	Con- demned ²	Total	Passed	Con- demned ²	Total
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Cattle.....	12,804,075	112,043	6,342	12,922,460	12,843,101	72,563	12,915,664
Calves.....	6,262,795	10,816	6,537	6,280,148	6,236,117	37,420	6,273,537
Sheep and lambs....	23,826,841	11,199	14,107	23,852,147	23,725,424	112,313	23,837,737
Goats.....	10,492	11	21	10,524	10,454	49	10,503
Swine.....	74,804,827	142,245	28,587	74,975,659	74,782,057	164,060	74,946,117
Horses ³	60,359	144	195	60,698	59,132	1,369	60,501
Total.....	117,769,389	276,458	⁴ 55,789	118,101,636	117,656,285	387,774	118,044,059

¹ "Suspected" is used to designate animals suspected of being affected with disease or condition that may cause condemnation in whole or part on special post mortem inspection.
² For causes and additional condemnations see tables 9 to 11, inclusive.
³ Horses are slaughtered and their meat handled and prepared in establishments separate and apart from those in which cattle, calves, sheep, goats and swine are slaughtered and their meat handled and prepared.
⁴ Includes 2,267 previously suspected animals that died in pens.

TABLE 9.—*Number of animals condemned for various diseases and conditions on ante mortem inspection, fiscal year 1944*

Cause of condemnation	Cattle	Calves	Sheep and lambs	Goats	Swine	Horses
Abcess.....	2				37	
Actinomycosis.....	1					
Arthritis and bone diseases.....	1	1			5	
Emaciation.....	4	7			63	
Enteritis.....					7	
Hog cholera.....					971	
Immaturity.....		254				
Injuries.....	1		4		3	
Mastitis.....	3					
Moribund ¹	5,768	6,266	14,079	21	26,910	195
Peritonitis.....					1	
Pneumonia.....	7	3	5		28	
Pregnancy and recent parturition.....					1	
Pseudoleukemia.....	1					
Pyrexia.....	13	5	18		512	
Septicemia and pyemia.....	11	1	1		23	
Tetanus.....	3					
Toxemia.....	1				17	
Tumors, carcinomata, sarcomata, etc.....	525				9	
Uremia.....	1					
Total.....	6,342	6,537	14,107	21	28,587	195

¹ Includes animals found dead in the ante mortem pens at time of inspection.

TABLE 10.—*Number of carcasses condemned for various diseases and conditions on post mortem inspection, fiscal year 1944*

Cause of condemnation	Cattle	Calves	Sheep and lambs	Goats	Swine	Horses
Actinomyeosis and actinobacillosis	587	26			9	
Anaplasmosis	206	6				
Anthrax (including spore vaccine lesions)	63	2			39	
Arthritis and bone diseases	287	764	1, 071		13, 988	1
Asphyxia	5	12	30		1, 450	
Blackleg	1	3				
Caseous lymphadenitis			17, 150	2		
Cellulitis		1			39	
Contamination	2		16		5, 234	
Cysticereosis	201	15	962		34	
Degenerative diseases					473	
Dropsical diseases	205	1	32		80	2
Emaciation	11, 013	6, 295	45, 675	28	388	288
Hog cholera					16, 816	
Icterus	251	803	4, 092		14, 805	2
Immaturity		17, 107	6	1		
Influenza					49	
Injuries	4, 099	737	4, 077	6	2, 949	30
Mastitis, mammitis, etc	3, 453	35	114	1	150	7
Melanosis	63	75	184		313	132
Metritis	4, 596	11	464		1, 424	10
Necrobacillosis	29	2	1		2	
Nephritis	3, 575	364	686		1, 960	18
Omphalophlebitis		488				
Parasitic diseases	238	2	254		1, 023	
Pericarditis	5, 008	101	189		646	
Peritonitis and enteritis	3, 228	2, 039	866		7, 273	40
Pneumonia and pleurisy	13, 084	5, 973	28, 189	4	32, 430	649
Pregnancy and recent parturition	27		10		8	1
Pseudoleukemia and leukemia	1, 364	60	22		315	7
Septicemia and pyemia	12, 350	2, 349	6, 499	4	36, 717	150
Sexual odor	11			3	5, 582	
Skin diseases	1				22	
Swine erysipelas					2, 784	
Toxemia	105	11	26		60	
Tuberculosis	2, 081	29	137		15, 910	
Tumors, ecarcinomata, sarcomata, etc	6, 000	60	246		694	31
Uremia	411	49	1, 315		392	1
Xanthosis	19				2	
Total	72, 563	37, 420	112, 313	49	164, 060	1, 369

TABLE 11.—*Number of parts of carcasses¹ condemned for various diseases and conditions on post mortem inspection, fiscal year 1944*

Cause of condemnation	Parts of carcasses of—				
	Cattle	Calves	Sheep and lambs	Swine	Horses
Actinomyeosis and actinobacillosis	183, 463	6, 514	16		
Arthritis and bone diseases	41	6	30	306	11
Cellulitis	10	2		602	
Contamination	158	158	2	2, 988	1
Degenerative diseases	12			15	
Dropsical diseases	8	1			
Injuries	2, 409	173	110	69, 027	66
Melanosis	19	33		5	56
Necrobacillosis	109	1			
Parasitic diseases	21			2	
Tuberculosis	2, 495	59		326, 674	
Tumors and abscesses	26, 139	4, 935	166	897, 474	2, 139
Xanthosis	27				
Total	214, 911	11, 882	324	1, 297, 093	2, 273

¹ In addition to the above parts, 1,339,292 cattle livers and 53,011 calf livers were condemned on post mortem inspection for abscess, distoma, "sawdust," telangiectasis, and other diseases and conditions.

TABLE 12.—Meat and meat food products prepared and processed under supervision, fiscal year 1944 ¹

Product	Quantity	Product	Quantity
	<i>Pounds</i>		<i>Pounds</i>
Placed in cure:		Bacon, sliced.....	560, 282, 293
Beef.....	134, 123, 636	Lard:	
Pork.....	4, 033, 981, 189	Rendered.....	2, 339, 028, 779
Smoked and/or dried:		Refined.....	1, 804, 245, 765
Beef.....	53, 160, 412	Rendered pork fat:	
Pork.....	2, 367, 808, 744	Rendered.....	255, 208, 641
Sausage:		Refined.....	141, 102, 201
Fresh, finished.....	400, 669, 726	Oleo stock.....	148, 565, 173
Smoked and/or cooked.....	986, 095, 209	Edible tallow.....	104, 238, 280
To be dried or semidried.....	138, 249, 645	Compound containing animal fat.....	255, 810, 912
Leaf, headcheese, chili con carne, jellyed products, etc.....	212, 307, 595	Oleomargarine containing animal fat.....	59, 965, 997
Cooked meat:		Miscellaneous.....	60, 018, 956
Beef.....	35, 226, 730	Horse meat, chopped.....	10, 235, 348
Pork.....	485, 662, 979		
Canned meat and meat food products:		Total.....	² 16, 707, 585, 972
Beef.....	134, 938, 998		
Pork.....	995, 723, 680		
Sausage.....	215, 572, 407		
Soup.....	286, 095, 549		
All other.....	489, 267, 128		

¹ The following quantities of meat and meat food products were condemned on reinspection and destroyed for food purposes on account of having become sour, tainted, rancid, unclean, or otherwise unfit for human food: Beef, 3,755,516 pounds; pork, 9,644,507 pounds; mutton, 169,479 pounds; veal, 83,002 pounds; goat meat, 381 pounds; horse meat, 15,981 pounds; total, 13,668,866 pounds.

² This figure represents inspection pounds. Some of the products may have been inspected and recorded more than once on account of their having been subjected to more than one processing treatment—such as curing first and then canning.

TABLE 13.—Quantities of meat and meat food products examined for condition and conformance to specifications for other Government agencies, fiscal year 1944

Branch of Government	Passed	Rejected
	<i>Pounds</i>	<i>Pounds</i>
Navy Department.....	491, 452, 266	3, 314, 411
Commodity Credit Corporation (including Federal Surplus Commodities Corporation).....	290, 093, 762	2, 029, 407
Coast Guard.....	12, 435, 360	214, 403
War Shipping Administration:		
Division of Training.....	3, 814, 640	97, 779
Marine Corps.....	803, 748	19, 628
Department of Interior:		
Alaska Railroad.....	684, 807	9, 141
Office of Indian Affairs.....	8, 083	
Alaska Road Commission.....	5, 963	
Alaska spruce log program.....	562	
Veterans Administration:		
Supply Service.....	611, 431	9, 394
War Department:		
Army Engineers.....	278, 756	468
Maritime Commission.....	176, 980	32, 072
Department of Justice:		
Bureau of Prisons.....	120, 992	1, 176
Total.....	800, 487, 350	5, 727, 879

TABLE 14.—Shipments of farm-slaughtered meat and meat food products, fiscal year 1944¹

Product	Carcasses	Quantity
	Number	Pounds
Cattle (124 quarters).....	31	9,887
Calves.....	2,110	99,850
Sheep and lambs.....	784	27,388
Goats and kids.....	64	1,443
Swine.....	88	12,423
Fresh meats:		
Beef.....		25,488
Veal.....		12,636
Mutton and lamb.....		2,762
Pork.....		111,102
Cured meat, sausage, lard, and miscellaneous meat food products.....		491,242
Total.....	3,077	794,221

¹ Under certain provisions of the meat inspection law, shipments of meat of animals slaughtered by farmers on farms, and meats shipped by retail butchers and retail dealers supplying their customers outside of the State, are exempted from inspection although such shipments are required to be reported.

TABLE 15.—Shipments by retail butchers and retail dealers under certificates of exemption, fiscal year 1944¹

Product	Carcasses	Quantity
	Number	Pounds
Cattle (2,300 quarters).....	575	273,549
Calves.....	140	14,308
Sheep and lambs.....	44	2,370
Goats and kids.....	1	30
Swine.....	44	4,609
Fresh meats:		
Beef.....		4,001,486
Veal.....		281,480
Mutton and lamb.....		416,458
Pork.....		707,993
Cured meat, sausage, lard, and miscellaneous meat food products.....		1,688,385
Total.....	804	7,390,668

¹ Under certain provisions of the meat inspection law, shipments of meat of animals slaughtered by farmers on farms, and meats shipped by retail butchers and retail dealers supplying their customers outside of the State, are exempted from inspection although such shipments are required to be reported.

MEAT GRADING

The meat-grading service, by expanding its personnel and improving its technique, was able to give a more complete national grading service with a higher uniformity than ever before. Satisfactory and improved operation resulted from close supervision and rigid application of the Federal class and grade standards. Acceptance of the meat-grading program by both processors and consumers was decidedly better than before.

Sixteen additional meat-grading stations—including one at Havana, Cuba, and another at San Juan, P. R.—were established. The grading service had expanded until activities were directed from 66 regular stations, 101 substations, and the 2 island stations. In addition, hundreds of other cities and towns received regular scheduled services from itinerant graders. The number of graders increased from 523 to 683. Only 43 decisions were appealed.

During the year a personnel increase was necessitated by (1) expansion in grading services in areas that supply meat directed toward civilians; (2) increased demand for services to certify the weight and quality of food bought by steamship lines operating under the War

Shipping Administration; and (3) intensification of the supervision over products bought for the account of the Commodity Credit Corporation and over the reconditioning of damaged products held in storage. Throughout the year the Office of Distribution graded and certified canned meats bought for the Commodity Credit Corporation.

TABLE 16.—Meats, meat food products, and byproducts regularly graded, certified, and accepted, fiscal year 1944¹

Item	1941	1942	1943	1944 ²
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Fresh and frozen beef.....	631,428	919,993	3,812,544	8,006,554
Veal and calf.....	8,468	9,906	335,949	980,626
Lamb.....	25,592	33,202	242,708	848,710
Yearling mutton and mutton.....	3,016	2,736	35,419	226,793
Pork.....	9,873	7,253	5,302	12,909
Cured beef.....	1,663	2,002	1,090	2,636
Cured pork.....	11,745	10,506	6,531	14,705
Sausage.....	6,564	7,545	6,397	11,413
Lard.....	1,403	1,405	940	1,816
Lard substitutes.....	241	247	227	749
Miscellaneous meats ³	4,135	4,130	1,938	4,678
Total accepted.....	704,128	998,925	4,449,045	10,111,589

¹ Excludes CCC (formerly Federal Surplus Commodities Corporation) gradings.
² April, May, and June estimated.
³ Excluded are 4,821,770 pounds of poultry and game, 2,044,261 pounds of fish, and considerable quantities of dairy products.

TABLE 17.—Meats, meat products, and byproducts certified and accepted for Commodity Credit Corporation (formerly FSCC), 1943 and 1944¹ fiscal years

Item	1943 fiscal year (actual)	1944 fiscal year (last 2 months estimated)
	Pounds	Pounds
Fresh pork products.....	184,140,702	675,847,284
Cured pork cuts.....	473,549,007	521,131,293
Canned meats ²	1,051,276,361	749,060,312
Lard and lard substitutes.....	625,554,455	1,050,911,281
Oleomargarine.....	109,252,745	319,039,597
Calf's-foot jelly.....	25,369	-----
Oleo oil.....	10,121,275	2,463,774
Fresh beef.....	11,133,874	33,453,528
Cured beef.....	81,300	-----
Beef suet.....	894,858	420,624
Veal.....	5,879,503	35,536,051
Lamb and mutton.....	79,998,386	105,961,202
Edible tallow.....	25,635,064	2,161,598
Total.....	2,577,542,899	3,495,986,544
Hog casings—bundles.....	3,261,169	3,987,664
Beef bungs—pieces.....	5,000	-----

¹ The figures shown in this table are not identical with those shown in table 3. The figures in table 3 include products *purchased* during the fiscal year but not necessarily *certified* and inspected during that period.
² Includes dehydrated beef and pork.

Distribution of Beef Graded According to U. S. Grades

Research has shown that data on grade distribution of various kinds of meat become highly significant when the entire slaughter is graded. But beef is the only kind of meat for which sufficient data have been accumulated to give a reliable indication of grade distributions. The volume of beef in each grade and the percentage distribution by grades are shown in table 18.

TABLE 18.—Beef officially graded, by grades, calendar years 1940-43 ¹

Grades	1940	1941	1942	1943	1940	1941	1942	1943
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Prime.....	11, 613	13, 419	-----	1, 297, 422	2. 0	1. 7	-----	19. 4
Choice.....	229, 867	308, 234	439, 831	-----	39. 7	39. 0	29. 7	-----
Good.....	233, 613	343, 189	560, 304	2, 081, 209	40. 4	43. 5	37. 9	31. 1
Commercial.....	69, 358	85, 894	284, 083	1, 544, 675	12. 0	10. 9	19. 2	23. 1
Utility.....	24, 654	26, 254	172, 991	983, 849	4. 3	3. 3	11. 7	14. 7
Cutter.....	6, 971	9, 584	14, 118	-----	1. 2	1. 2	1. 0	-----
Canner.....	2, 224	3, 201	6, 857	785, 013	. 4	. 4	. 5	11. 7
Not specified.....	137	120	284	71	. 0	. 0	-----	-----
Total.....	578, 437	789, 894	1, 478, 468	6, 692, 240	-----	-----	-----	-----

¹ The 1943 tonnage of beef graded shows an increase of 5,213,772,000 pounds (dressed weight), or 353 percent, over the 1942 total.

It is estimated that 1943 beef slaughter from all sources would total 8,457,141 pounds (dressed weight), of which approximately 79 percent was Government graded and stamped.

PACKERS AND STOCKYARDS ACT

The Packers and Stockyards Act involves supervision over the operation of packers, stockyard companies, market agencies, dealers in livestock, and licensees handling poultry in commerce, and the regulation of rates and charges for services at stockyards and designated poultry markets.

As the year began, 49 formal dockets as provided for in the act were pending. During the year 90 cases were begun or reopened and 82 were disposed of; 57 were pending at the end of the year. The year also saw final disposition of 6 cases in Federal district courts. Most of these involved failure to comply with the registration or bonding requirements of the statute, and resulted in fines ranging from \$100 to \$300. Table 19 shows the agencies and persons registered under the Packers and Stockyards Act, fiscal years 1943 and 1944.

TABLE 19.—Agencies and persons registered under the Packers and Stockyards Act, 1943 and 1944 fiscal years

Fiscal year ended	Stockyards posted	Market agencies registered	Dealers registered	Packers under supervision	Poultry licensees
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
June 30, 1943.....	205	1, 863	2, 548	1, 217	1, 619
June 30, 1944.....	202	1, 907	2, 553	1, 301	1, 574

During the year no stockyards were posted and 3 were deposited. Registrations were made on 327 agencies and 411 dealers, and 283 agencies and 406 dealers were placed on the inactive lists. In the poultry markets 104 new licenses were issued and 12 were restored; 161 became inactive. A total of 213 packers were added to the jurisdictional list and 129 were removed.

Because of the year's large livestock marketings and relatively high unit values, it became necessary for registrants to increase the amount of the bonds which insure remittance of proceeds and payment for livestock purchased. Outstanding bonds increased from more than 22 to more than 25 million dollars.

Intensive activity in rate regulation increased. The number of tariffs and supplements filed and acted on totaled 1,448, as against 1,208 during the year before.

An order was issued in a case involving the reasonableness of rates at the St. Louis National Stockyards. Here, for the first time, Federal income taxes were not allowed as an operating expense on the ground that high wartime taxes should not be passed on to the rate payer.

The large volume of livestock and live poultry marketed required supervisors and their assistants in the field to guard constantly against unfair practices at stockyards and markets. In addition, the supervisors helped to conduct hearings and assisted investigators on special assignments. They also directed accounting investigations of unfair trade practices. During the year 158 financial and trade-practice audits were made of the operations of stockyard companies, market agencies, dealers, and licensees.

Matters investigated included failure to apply tariffs correctly, failure to keep true and accurate records and to account properly to consignors, misuse of shippers' proceeds, the feeing of truckers, and other improper practices. Thirty-eight disciplinary complaints involving unfair practices were issued, most of them resulting from information revealed through audits. These were terminated in some cases by suspension of registrations ranging from 90 days to 3 years and in others by cease-and-desist orders.

Manpower shortages led to greater-than-usual recourse to stipulations both in rate cases and in those disciplinary cases that did not involve fraud or more serious violations. Informal complaints disposed of numbered 643, as compared with about 400 in 1943. In this manner shippers and others received \$20,711.63 without the necessity of filing formal complaints and attending hearings.

Because wartime conditions made the purchase of new scales difficult, the maintenance and repair of scales for weighing livestock and live poultry were very important. OD personnel supervised most of the 2,600 tests of scales made at markets throughout the country.

OD valuation engineers completed field inventories of the physical plants and lands of two stockyard properties and completed the map work and office calculations on appraisals of three others on which field work had been performed previously.

Audits made under the act totaled 380, compared with 508 in 1943.

Statements of the prices of corn and wheat fed to livestock at stockyards were carefully scrutinized to determine whether the stockyard companies were basing their selling prices on purchase costs above established ceiling prices. Toward the end of the year, when OPA placed ceilings on alfalfa hay, the selling price of that product also came under close scrutiny.

MARKET NEWS

Demand on the livestock market news service for market and economic information was heavier than ever before. Formulation and operation of the important activities of the War Meat Board were based largely upon information gathered, analyzed, and made available by the service. Consumers, processors, distributors, and Government agencies concerned with livestock marketing and meat distribu-

tion leaned heavily upon the service for information about supplies, demands, prices, and grades.

With a continuation of the trend toward decentralized livestock marketing, the adequacy of market news coverage in outlying trade areas became more important than in former years. Under a restrictive program, the service for decentralized and terminal livestock markets provided coverage on less than 50 percent of the livestock marketed. Urgent requests were received for extension of the service to public markets at Spokane, Wash., Billings, Mont., and Buffalo, N. Y., for coverage of the direct hog trade in Ohio, Indiana, North Carolina, and South Carolina; and for coverage of the direct sheep and lamb trade in interior Iowa.

Through the 29 field offices and the directing office at Washington, D. C., services were supplied at 28 of the country's major terminal-livestock markets and in 3 of the major direct trading areas. Moreover, reports on supplies and trade conditions covering 5 large wholesale meat centers and the Boston wool market were regularly supplied. In addition to rendering numerous special services, OD representatives served as consultants, advisers, and sometimes directors on special marketing and market-improvement committees.

Among the more important of these were special hog-marketing committees set up at Corn Belt markets to direct an orderly flow of hogs to market. Field offices assembled much of the daily data and other factual information utilized in the special daily hog-marketing situation reports which were released throughout the period of congested movement.

Numerous special or unscheduled services, which had come to be regarded as regular functions of the service, included the supply of statistical tabulations on particular classes and grades of livestock, meats, and wool for specified periods. Technical staff members were asked to give advice about livestock studies and marketing programs, to conduct student and producer tours through stockyards, to explain marketing and trading procedure, to serve as advisers on marketing-improvement committees, to conduct grading demonstrations along with standardization activities, and to serve as judges at livestock shows.

Information was spread by every practical means of communication. By Government-leased wire, 23 of the largest markets had instantaneous between-market communication from 6 or 7 a. m. until midafternoon. To extend distribution, use was made of reports, bulletin boards, telephone calls, radio broadcasts, press-association contacts, commercial wire companies, and trade journals. In addition, during the year more than 5,660,000 detailed reports, analyzing daily, weekly, and periodic operations, were furnished 17,340 subscribers who requested them.

MISCELLANEOUS COMMODITIES

Spices, tea, coffee, and cocoa beans were among the 100 smaller miscellaneous commodities that presented complex marketing problems, as in the preceding year. It has been especially difficult to have on hand specialists fully informed and capable of evaluating the problems in dealing with the details of supply, requirements, and administra-

ive control for such unrelated products as beer, fish, confectionery, essential oils, honey, ice, macaroni, peanuts, soft drinks, yeast, and many others.

Some of these commodities are produced in various parts of the United States and some in the world's distant corners. They are sold in almost every market, and their importance and essentiality shift constantly. Administrative controls are complicated by the fact that some of them require allotments of raw materials, some require set-aside orders, and others require continuing distribution quotas.

During 1944, 17 of the commodities were under either national or international allocation. To gain advice, the OD had set up 24 industry advisory committees and issued 12 War Food Orders, of which 10 were amended.

BAKING POWDER

Supplies of baking powder were sufficient to meet requirements, but difficulties in maintaining an even supply occurred because cornstarch was extremely short in supply. Cornstarch is used as a diluent in baking powder. An important development was the use of calcium carbonate in place of cornstarch as a diluent. A public service patent on this process has been applied for, to make it available without royalty to manufacturers. Before commercial production was begun, investigations showed that use of the product would violate no Federal or State food regulation.

BEER

As the year began, the supply of malt beverages did not meet all consumer demands, although the rate of production (70 million barrels a year) far outstripped that of any pre-war period.

Supply shortages resulted from WFO 66, which restricted small brewers' plants to 100 percent of former use of malted grain, and large ones to 93 percent of such use. Because of the malted grain requirements of industrial alcohol plants, it was impossible to lift the restrictions upon the use of malt by the brewing industry. However, a reduction in the alcoholic content of beer and in the quantity of malt proportional to other grains used, allowed the industry to expand production.

No food order was issued to affect beer distribution, but under WFO 66 each brewery was required to set aside 15 percent of total production for sale and delivery upon orders received from the armed forces. Beer not purchased by the armed forces could be released for sale to civilians.

BEESWAX

On June 30, 1944, supplies of beeswax were the smallest known for that time of year. Attempts were being made to increase the supply in order to meet the great wartime demand. For several months before the year ended the War Production Board had had in writing a limitation order affecting beeswax, but the order had not been put into effect.

CITRIC ACID

Though sufficient to meet military requirements, the supply of citric acid was insufficient to fill normal civilian requirements. The OD assisted the Combined Food Board in making an international alloca-

tion of citric acid available in Sicily. The program included allocations to the United Kingdom and to the U. S. S. R. The domestic supply depended somewhat upon availability of raw materials (beet and cane molasses used in the biological synthesis of citric acid, and lemons used in the natural-oil recovery). Molasses was allocated under M-54, which limited its consumption for citric acid production in any quarter to 130 percent of the quantity used during the corresponding quarter in the year ending June 30, 1941.

Citric acid was not rationed. Equitable distribution of supplies was the joint responsibility of the OD and the War Production Board. Responsibility for production remained in the WPB subject to an OD-WPB agreement that of the citric acid available for civilians, 70 percent was to be allocated for food uses and 30 percent for pharmaceutical manufacture.

Experiments were made to recover the acid from the waste waters from pectin factories and citrus canneries, but they were still in the laboratory or pilot-plant stage.

COCOA BEANS

On April 1, 1944, United States stocks of cocoa beans approximated 208 million pounds, about 4 months' supply, and a further decrease was expected. Difficulties in maintaining inventories resulted from a lack of available shipping from the west coast of Africa, the principal cocoa-producing area.

WFO 25 limited the processing of cocoa beans to make disappearance consistent with availability. During the third quarter of 1943, processing for civilian use was restricted to 70 percent of 1941 usage, and for the fourth quarter to 80 percent. Under the order, the quantities of cocoa beans needed to fill ex-quota requirements could be processed.

During the year, distribution of cocoa and chocolate products continued satisfactorily under WFO 25. Some manufacturers were unable to process their full civilian quota because of the armed forces' tremendous demands, but the civilian cocoa that was produced was distributed equitably.

COFFEE

On July 28, 1943, coffee was removed from the ration list. At that time, it was feared by some that this removal might start a buying wave that would seriously affect the supply situation. Fortunately, the wave did not develop.

As a result, roastings during the 2 months immediately after rationing ended were small. During the rest of the year, stocks of green coffee in this country varied from approximately 3½ million bags to a very comfortable stock at the end of the year of over 5 million bags—a 4 months' supply at the rate of roastings then current.

ESSENTIAL OILS

As the year began, supply shortages had begun to develop in certain domestically produced essential oils—peppermint oil, spearmint oil, and cold-pressed oil of lemon. Imported essential oils were generally tight, with some unobtainable.

In order to distribute peppermint oil equitably and fill lend-lease requirements, supplies were set aside under FDO 81, issued Septem-

ber 10, 1943. Under it, all owners were required to set aside 100 percent of their peppermint oil for sale and delivery to WFA or as designated by the Director of Distribution. Persons who used this oil during the base year 1941 were permitted use of a 30 percent limitation of their 1941 consumption.

After the 100,000-pound lend-lease requirement had been met, the set-aside restrictions of FDO 81 were revoked upon the issuance on January 1, 1944, of WFO 81. Under it, quotas of peppermint oil were set up for various types of end use, varying from 70 percent for confectionery and chewing gum to 100 percent for pharmaceuticals.

A tight situation also developed in cold-pressed oil of lemon because not enough lemons had been diverted from fresh markets. To insure enough of the oil for the armed forces, the OD authorized the Army and Navy to use an FR-9 priority rating in purchasing this product. The OD also permitted manufacturers of products containing lemon oil to extend or use the FR-9 priority rating for purchasing the lemon oil they needed to fill military contracts.

FISH

Implementing the salted fish allocation of the Combined Food Board in 1943, WFA issued WFO 72 regulating the importation of salted fish into the United States. Under the order, each qualified importer was permitted to import his quota of salted fish, and the original quotas were increased by supplemental allocations in the course of the year. This procedure was continued during 1944.

Under this order, WFA procured, imported, and distributed salted fish for Puerto Rico. Moreover, all cured fish were placed on General Imports Order M-63-g, permitting WFA to carry out its exclusive purchase program for Puerto Rico and the Virgin Islands.

As for fresh and frozen fish products, the supply situation improved greatly during the year. The few maldistribution problems which arose were corrected by informal conferences with the industry. Only one formal Government order designed to insure equitable distribution of halibut was issued for the several Pacific ports. Effective June 23, 1944, this order, issued by the Coordinator of Fisheries, allocated halibut landings to the dealers of record according to their receipts as compared with the total catch in a historical period.

The supply of canned fish in the hands of producers and distributors was somewhat smaller on January 1, 1944, than on January 1, 1943. The commodity was removed from rationing on May 1, 1944, as a result rather of the relationship between canned fish and other products than of an increased supply.

HONEY

Stocks of domestic honey were low as the year began. The honey limitation orders—WFO 47 and WFO 47.1—helped to channel honey to the home table through packers and the wholesale and retail trade. An amendment to OPA's MPR-275, however, encouraged beekeepers to pack honey in retail-size containers, and much honey that ordinarily would have been marketed through packers was sold by beekeepers direct to stores or consumers.

Few commercial attempts to produce substitutes for straight honey were reported. Though honey flavored with strawberry and rasp-

berry sirups has appeared on the market, it has not been popular. During the year, cheap sirups made of corn sirup and refiner's sirup were virtually substitutes for honey in sales appeal because of their much lower prices. No serious attempt was made to market "artificial honey," popular in certain European countries.

The two War Food Orders (as amended October 28, 1943) included honey sugar sirups. The volume of honey in these sirups was required to be applied against the honey quotas of the firms using them, as authorized in the honey War Food Order. Manufacturers are allowed 120 percent of their honey use during the corresponding months of 1941. Manufacturers with new formulas requiring honey, or with changed formulas in which honey was used, were granted a special honey quota if they certified that the honey was not being used primarily in place of sugar or other sweets.

Several new products containing honey or formulas in which honey is a constituent, were developed. These included graham crackers, cerealized ice products, honey jumbles, honey wines, honey sirups, honey chocolate-flavored sirups, and honey candies. The Bee Culture Laboratory in Washington and its field laboratories worked to develop strains of bees that would yield more honey.

MACARONI AND NOODLE PRODUCTS

Supplies of macaroni and noodle products were ample to meet all requirements. A process for enriching macaroni products with soya flour and whole eggs was developed in cooperation with the industry. The resulting product, a useful supplement to low-protein dietaries, has a higher protein content than ordinary macaroni. Experiments in cooperation with the industry for enrichment with a blend of durum and peanut flours were also in progress.

SOFT DRINKS

As the year began, the supply of soft drinks was primarily controlled by the sugar rationing program which provided 70 percent of 1941 use. After several changes, this was set at 80 percent. Reduction in supplies of citric acid and lemon oil limited the supplies of some soft drinks.

The net result of various orders was to hold down the distribution of soft drinks for civilians to about 85 percent of 1941 production. There was no formal rationing of soft drinks themselves.

SPICES

Distribution of spices continued to be regulated under WFO 19. On February 29, 1944, two amendments withdrew cloves and pimento from regulation and lumped black and white pepper together for consideration. They also increased the quotas of mace from 40 percent to 80 percent, and of nutmeg from 60 percent to 70 percent. The revised quota percentages thus established, effective from January 1, 1944, throughout the year, were as follows:

Restricted spice:	Quota percentage
Black pepper and white pepper-----	40
Cassia (cinnamon)-----	35
Ginger-----	100
Mace-----	80
Nutmeg-----	70

A change in the definition of "spice blend" and "industrial user" provided that the spice packer who prepares and delivers spice blends should operate on a delivery quota basis for the restricted spices delivered in such blends.

Available supplies of spices were distributed with one outstanding exception—pepper. The program was hampered because most pepper was held in whole form by a number of investors and dealers who declined to offer it for sale because they objected to the price ceiling of 6½ cents a pound. As a result, 85 of about 110 packers had a 6 months' supply or less, and of these, 54 had no stocks at all.

In March 1944, WFA requisitioned about 6½ million pounds of whole black pepper from various holders. It was planned to offer this pepper to packers, with permission to those whose stock was less than a 6 months' supply on the 40-percent quota basis to buy enough to bring their stocks up to that quantity. It was also planned to make part of this pepper available for military, lend-lease, and other export requirements. However, an injunction proceeding, instituted by one of the pepper holders from whom the largest quantity was requisitioned, prevented the OD from carrying out this plan. The injunction was pending as the year ended. The Army and Navy requisitioned pepper for their needs. Other requirements, including lend-lease, export, and civilian manufacturing and consuming needs, were left unfilled.

Substitutes, which were developed for several spices, consisted of synthetic products and various combinations prepared with proportions of the essential oil of the true spice, with a carrier.

TEA

Distribution of tea was regulated by WFO's 18 and 21. Before January 1, 1944, there were 14 qualified tea distributors. Allocations of arrivals were made to each qualified distributor; they were based upon the average of his 1940-41 imports. In addition, allocations were made to a group of 11 large packers who also formerly imported large quantities of tea. Although allocations were made directly to these so-called import packers, purchases were made through qualified distributors. Quantities thus distributed to import packers did not include qualified distributors' allotments.

Effective January 1, 1944, under an amendment to the order, the Tea Distribution Committee was dissolved and a collaborator was appointed to perform its functions. Because greater supplies of tea were expected during 1944, 5 additional former importers were appointed for designation as qualified distributors. Two of these declined appointment; therefore 1 other former importer was designated, which made a total of 18 qualified distributors in operation at the year's end.

Beginning January 1, 1944, allocation of tea arrivals direct to import packers was discontinued. Thenceforth all supplies available for the trade were allocated exclusively to qualified distributors, and it was necessary for import packers to receive their supplies from qualified distributors in the same manner as other packers.

Imports increased after June 1943, and WFO 18 was amended several times to give the industry the benefit of the improvement in

supply. The final amendment, effective October 1, raised the quota percentage to 75 percent.

The only new developments in the industry were in packaging. Owing to a metals shortage, the trade continued to pack tea in cardboard. Since gauze was not available for packing individual tea balls, vegetable parchment was used instead. Because of a WPB prohibition, cellophane was no longer used for packaging and wrapping tea.

VITAMINS

Distribution restrictions on vitamin A were recommended to WPB with the result that order M-373, effective February 28, 1944, was issued. Increased production of carotene was encouraged. One difficulty in vitamin A production had been the lack of a suitable method, acceptable to both supplier and Government, for determining the vitamin A content of livers. Fortunately, such a method was developed.

As the year began, there was not enough carotene to meet both domestic and export demands. Though the industry was given all possible aid toward increasing its production, carotene stocks continued low and it was impossible to meet requirements. A plant was erected in Texas to extract carotene from alfalfa and agricultural waste. When this plant comes into full operation, it will have a capacity of 1.5 trillion units of carotene a year.

On July 1, 1943, the supply of synthetic vitamins (excepting niacin and nicotinic acid amide) was sufficient to meet essential requirements of the claimant agencies. Synthetic vitamins were covered by Allocation Order M-300, except ascorbic acid, which fell under Order M-269. Under these orders the vitamins were allocated by WPB to users in accordance with the allocations of the War Food Administration.

Stocks in the hands of the industry and Government at the year's end were ample to meet current requirements except of ascorbic acid, niacin, and nicotinic acid amide. During the last fiscal quarter, supplies of niacin and the amide were insufficient, and the quantities to all claimants were cut down.

WINE

WFO 17 restricted the purchase, delivery, and use of raisin-variety grapes for any purpose other than conversion into raisins. WFO 69 restricted (with certain exceptions) the use of specified fruits and berries and Concord grapes for conversion into an alcoholic product for sale.

YEAST

On July 1, 1943, supplies of active dry yeast were sufficient to meet demands, but requirements increased thereafter. The industry, co-operating with Government, increased the available supply and made rationing unnecessary. Since requirements increased faster than supply, however, allocation among the various claimants became necessary. There were no food orders. Practically the entire output of active dry yeast went to United States and allied military services.

Supplies of brewer's dry yeast also were light as the year began and, although the industry and OD obtained substantial supply increases, they did not equal demand at the end of the year. Since brewer's yeast is a byproduct of brewing, supplies depend upon the volume of beer

produced. Maximum quantities available totaled between 20 and 25 million pounds annually on a dry basis. There are no food orders covering brewer's yeast, and only the portion being used for nutritional purposes was under allocation.

Since brewer's yeast is rich in proteins and vitamins, it was badly needed for food and for stock and poultry feed. The OD sponsored a program to save more brewer's yeast than previously had been conserved; as a result, it was expected that practically all available supplies would be conserved.

New uses for nutritional yeast were developed as a result of continuing research by the industry and the Government. The product was marketed in tablet form primarily for its vitamin content. In powdered form it has been used in baking products, dry soups, dry stews, bouillon, and flavoring.

Since the raw materials—principally molasses—used in the production of primary-grown nutritional yeast are limited by food orders, the OD undertook to supplement supplies of primary-grown nutritional yeast through the conservation of brewer's yeast. As a result, substantial quantities of molasses were saved for other uses.

SUGAR

The chief wartime problem of the domestic sugar-producing areas is to prevent or minimize the decline in production resulting from shortages of manpower and materials. This problem has been accentuated by price control, which in the case of sugar, has been particularly effective and this control has necessitated alternative forms of income for producers. In working out the various wartime programs designed to provide sugar growers with this additional income, it was necessary to correlate the activities relating to fair-price and wage determinations under the Sugar Act of 1937 with the subsidy and labor recruitment programs. In some areas these support programs could not have been made completely effective without the authority contained in the act.

Legislation extending the Sugar Act of 1937 for another 2 years without change was passed and approved in June 1944. The War Food Administration report to the congressional committees on the subject pointed out:

The authority given to this Administration under the act, supplemented by the wartime powers of the Federal Government, permitted rapid action to be taken to prevent runaway sugar prices, to maintain income for most domestic sugar producers at income parity levels or better, and to allocate curtailed supplies on an equitable basis.

It is therefore believed that this legislation, together with the predecessor legislation (the Jones-Costigan Act), were not only effective instruments in meeting the problems of the industry during the pre-war period 1934-40, but also now provide part of the requisite machinery and authority needed under wartime conditions.

The Administration's views on certain desirable changes in the sugar quota provisions of the act have been repeatedly stated to the committee on former occasions and need not be repeated at this time. However, since current uncertainties preclude satisfactory consideration of amendments to the act at this time and the quota provisions have been in suspense since April 13, 1942, under presidential proclamation, enactment of H. R. 4833 without amendment is recommended . . .

FAIR PRICE DETERMINATIONS ISSUED

The "fair and reasonable price" condition of payment under the Sugar Act of 1937 applies solely to producer-processors of sugar beets or sugarcane who buy beets or cane from other growers. This condition requires them to pay for the purchased cane or beets not less than the prices deemed "fair and reasonable" by the War Food Administrator after public hearing and investigation. Public hearings were held in all domestic areas during the year, and the fair price determinations covered the 1943 crop in Louisiana, Florida, and Hawaii, the 1943-44 Puerto Rican and Virgin Islands crops, and the 1944 continental beet crop.

The fair price determination for Louisiana was the same as in 1942, except for the addition of a new section designed to integrate its provisions with the 1943 sugarcane price-assistance program financed by the Commodity Credit Corporation. The support program provided that under the prevailing price ceiling of 3.73 cents a pound for raw sugar, growers were to be paid an additional 33 cents a ton for standard sugarcane.

The price determination for the 1944 sugar-beet crop required that growers be paid for their sugar beets not less than the prices provided for in the 1942 purchase contracts between the processors and the producer, plus any support payments received from the War Food Administration.

The price determination covering the 1943-44 Puerto Rican sugar crop continued in effect the determination of the preceding year except that it restored the principle of grower participation in the unusually large income from the sale of molasses resulting from the wartime demand for this commodity.

Such a proviso was contained in the 1941-42 determination, but, because the intensive Axis submarine campaign in the Caribbean prevented the timely transfer of molasses from the island to the continental United States, it was omitted from the 1942-43 determination. During 1944, however, the Defense Supplies Corporation offered to buy Puerto Rican blackstrap molasses at approximately 14 cents a gallon, compared with the immediate pre-war level of approximately 4 cents a gallon.

In view of the scarcity of raw materials for alcohol it was assumed that the War Shipping Administration would be able to move all of this year's blackstrap production not consumed on the island, particularly since the enemy submarine action in Caribbean waters had abated. The molasses-sharing provision gives Puerto Rican growers half of all returns from the sale of blackstrap molasses above 4 cents a gallon. This represented an additional grower income of about 20 cents a ton for sugarcane. A similar provision has been in effect during the past three seasons in mainland sugarcane-producing areas.

The 1943 Florida and Hawaiian and the 1943-44 Virgin Islands price determination remained the same as in the preceding year.

MINIMUM WAGES ESTABLISHED FOR FIELD WORKERS

During the fiscal year "fair and reasonable" wage rates to be paid by sugar-beet and sugarcane growers as one of the conditions for payment under the Sugar Act were established for all domestic sugar-producing areas. Because of competition for a very short supply of

labor, however, growers in most areas found it necessary—as they had not in former years—to pay wages higher than those required for compliance under the Sugar Act. Therefore, instead of serving as the prevailing wages as in former years, the prescribed rates provided a protective minimum and also served as a stabilizing factor, since the wage rates announced during the year were based generally on the standards used in other years in fixing such rates as required by the act.

Substantial wage increases had taken place in the continental sugar-beet area in 1943 and no further increases were made in the 1944 determination. This action permitted many areas to put into effect voluntary bonus systems for 1944 which will result in substantial increases in earnings. The prevailing wages being paid, with or without such a bonus, in most parts of the beet area are somewhat higher than the minimum rates fixed in the wage determination.

In Louisiana, the harvesting-wage rates for the 1943 crop were increased by approximately 46 percent over 1942 so as to raise them to a level where recruitment for cane labor could compete more successfully with wages being paid in other lines of work. Most of the increase was made possible by restoring the income-wage relationship which existed in the pre-war period and the remainder by the subsidy payments of about 33 cents a ton of cane made by the CCC to the producer.

Florida growers were compelled by a severe labor shortage to pay wages considerably higher than the minimum rates provided in a tentative finding, and thereby were qualified for payments. No war-time subsidy payment was made to Florida growers on the 1943 crop. Cultivation rates for both Louisiana and Florida were increased for 1944 by approximately 17 percent over 1943.

The weighted average increase in the rates for all cane operations for the 1944 Puerto Rican sugarcane crop was approximately 7 percent over the rates fixed in the wage determination for the previous season. However, the 1944 rates were only about 1 percent higher than those fixed by the island's Minimum Wage Board. The wage determination also provided that, in the event of rises in the price of sugar, laborers were to receive an additional increase of approximately 10 cents a day for each rise of 25 cents a hundredweight.

The required average daily earnings for Hawaiian sugarcane workers were increased 15 percent for the last half of 1943. The economic position of the sugar industry in Hawaii under war conditions precluded any further change for 1944 except that an annual average daily wage per farm for all operators was established at \$2.40. Support payments by the CCC to growers were shared with laborers in Puerto Rico and Hawaii.

In the Virgin Islands, cane workers' earnings were improved by increasing the required nonharvesting rates for 1944 by almost 31 percent. No increase was made in harvesting rates but, since the same workers generally are employed throughout the year, the net result was an average increase of about 21 percent in the 1944 wages for all work.

SOIL-CONSERVING PRACTICES

The farming practices required of continental sugar-beet and sugarcane growers as a condition for payment under the Sugar Act on

their 1944 production of sugar were substantially the same as in the preceding year. In the beet area, the practice of protecting summer fallow from wind and water erosion was made applicable to the Red River Valley of Minnesota and North Dakota following the recommendation of the State agricultural conservation committees in both States and of local soil experts. The practice of summer fallowing is followed extensively in that area as a means of eradicating weeds, conserving soil moisture, and concentrating soil fertility.

In the mainland cane area the only change was the addition of a ditching practice recommended by Louisiana officials of the Agricultural Adjustment Agency in order to insure proper drainage. Under this practice the removal of 25 cubic yards of earth in the construction, enlargement, or clearing out of lateral ditches and lead canals was counted as 1 acre of conservation practices.

The food-planting requirement in the 1943 Hawaiian farming-practice determination was discontinued for 1944 in order to insure maximum sugar production at a time when there was little danger that Hawaii might be cut off from the mainland. Consequently, Hawaiian sugar producers in 1944 were required to apply a minimum of 100 pounds of plant food per acre of sugarcane to not less than 80 percent of acreage on which sugarcane was planted—or a ratoon crop of cane started—at any time in 1944.

When the original Puerto Rican farming-practice determination for the 1944–45 crop was issued on December 29, 1943, it required sugarcane growers not only to apply commercial fertilizer to their cane land in amounts consistent with the fertilizer rationing program of the island, but also to plant food crops for human consumption on an area equal to 10 percent of their sugarcane acreage. The purpose of the latter requirement was the stimulation of foodstuffs production in Puerto Rico, which was dependent on the mainland for much of its food. The submarine campaign of 1942–43 had seriously threatened the Puerto Rican food supply, with the result that the 1943 program authorized by the Sugar Act encouraged expanded food production in the island, as well as in Hawaii and the Virgin Islands.

The original 1944–45 farming-practice determination had to be revised, however, because a serious drought in Puerto Rico in 1944 made it extremely difficult for growers and farmers successfully to grow and harvest the required food crops before the heavy rains began. Furthermore, a substantial improvement in the shipping situation which resulted in increased arrivals of food in the island reduced the need for these crops. The determination was accordingly revised to eliminate the food-crop requirement.

SPECIAL WARTIME ACTIVITIES

Under Executive Orders Nos. 9280 and 9334, the Office of Distribution handled the allocation of raw sugar, the conservation and distribution of edible molasses, and the programming and justification of the sugar industry's needs for processing equipment. Three food orders relating to sugar were administered during the year. WFO 7 and WFO 7.1 controlled the distribution of raw cane sugar to refiners in the continental United States, and WFO 51 provided for restrictions on deliveries of edible molasses.

On June 15, 1944, WFO 7.1 was amended, chiefly as a result of increased raw-sugar arrivals from offshore areas, to provide for in-

creased raw-sugar allotments to refiners. The operation of the raw-sugar allocation orders, as well as other problems of cane-sugar refiners, was discussed at various meetings of the Cane Sugar Refining Industry Food Advisory Committee of the WFA.

Prior to April 27, 1943, the distribution of edible molasses and sirup was regulated by War Production Order M-54, as part of an over-all conservation of molasses for the alcohol program. Following the establishment of the Food Distribution Administration (now Office of Distribution) on December 5, 1942, the regulation of all edible products under M-54 was transferred to that agency by Food Distribution Order 51 (subsequently designated as War Food Order 51).

As stated in the preamble, the purpose of the order is "to assure an adequate supply and efficient distribution of edible molasses to meet war and essential civilian needs." Quotas for blenders and food manufacturers were increased from 100 to 110 percent of their usage during the year ended June 30, 1941. The production of sirup and edible molasses is flexible, i. e., output can be increased at the expense of sugar and blackstrap, chiefly the latter. The effect of the increase in quotas, therefore, coupled with ceiling prices which were advantageous as compared with sugar prices, resulted in a marked increase in production of all types of sirup during the 1943-44 marketing year.

At the same time, steps were taken to relax the restrictions on the importation of high-grade molasses from the British West Indies and on edible invert molasses from Cuba. The net result of these measures was to increase the supply to the approximate level of a controlled distribution demand.

Distribution is controlled by restricting the quantity that any person may receive or use to 110 percent of the quantity used during the year ended June 30, 1941. Exemptions are made in the case of deliveries to certain Government agencies and for lend-lease. Specific authorizations for use in addition to or outside the established quotas have been made when warranted by special circumstances. For example, certain industrial concerns, unable to obtain their basic raw materials (other than sugar), have turned to molasses as a substitute and bakers in war production or war training areas have found their basic quotas wholly inadequate. The diversion of cane sirup from legitimate channels to the illicit manufacture of beverage alcohol created a problem.

Commercial usage of sirup and edible molasses by reporting blenders and food manufacturers during the calendar year 1943 amounted to 29,312,000 gallons distributed as follows: Refiners' sirup, 9,581,466 gallons; sirup of cane juice, 5,447,622 gallons; first and second molasses, 8,451,920 gallons; edible blackstrap, 5,831,178 gallons. Stocks of all types except blackstrap held by producers, distributors, and commercial users increased from 13,455,494 to 15,455,623 gallons during the year, an increase of 2,000,129 gallons.

During the fiscal year the sugar industry, continental and insular, was assisted in obtaining the processing equipment it needed to function efficiently and at the highest possible production level. Investigations disclosed that the industry would need in 1944 between 200 and 300 items, such as centrifugals, filters, clarifiers, minglers, granulators, evaporators, crystalizers, beet-knife sharpeners, and juice heat-

ers. Hence the War Production Board was asked to allocate 1,581 tons of steel and 150 tons of other controlled materials, such as copper, brass, and aluminum, for the manufacture of these items of processing equipment. More than 200 priority applications covering processing equipment and other industry requirements were reviewed.

With the Commodity Credit Corporation, the OD developed a plan for saving surplus potatoes by drying them in a number of beet-sugar factories during the idle season. As a result, about 9½ million bushels of potatoes were processed primarily for animal food.

The need for sugar-beet molasses in the production of yeast and citric acid was greater than the prospective supply. This led to the issuance of an amendment to War Production Board Order M-54, under which the desugarization of beet molasses was limited to 40 percent of the quantity desugarized in the base period 1940 crop campaign. The result was the production of an estimated 25,000 tons less sugar than under normal operating conditions.

Moreover, the sale of molasses at the maximum prices initially set would have resulted in a return per ton on beet molasses of considerably less than its value in terms of recoverable sugar. Following discussions between representatives of WPB, the Office of Price Administration, and WFA, relief was given to the processors through an increase in the price of molasses.

The detailed figures on domestic sugar production, processing, meltings, and distribution of the stocks gathered under authority of the Sugar Act of 1937 continued to furnish the statistical basis for the sugar-rationing program of the OPA, for sugar allocations by WFA among the various Federal agencies which are claimants for domestic or foreign account, and for use in administering other phases of the sugar program.

In January, an international allocation was recommended to the Combined Food Board under which, as later slightly revised to fit changing conditions, the United Kingdom and Canada were allocated the exportable production of the British West Indies, the Dominican Republic, Haiti, and about 300,000 tons from Cuba. The United States received the balance of the exportable production of Cuba and all of the production of Puerto Rico other than that required for local use. The United States assumed supply responsibility for certain populations and the United Kingdom for others.

SUPPLIES AND DISTRIBUTION OF SUGAR

The great improvement in the ocean transportation situation in the Caribbean area during the year made it possible to increase sugar allowances to American consumers. In August 1943 the sugar ration of manufacturers of bread, candy, soft drinks, ice cream, condensed milk, fruit preserves, and other food products was increased from 70 percent of their 1941 sugar usage base, at which level they had operated during the first 7 months of the year, to 80 percent, and soon afterward OPA granted special additional allotments to fruit preservers and manufacturers of cereal products in which the ratio of sugar to flour was low. Manufacturers of drugs and medicines also received increased sugar rations.

The special allotment to manufacturers of jams, jellies, marmalades, and fruit butter was made to increase the 1943-44 supplies of alternate

bread spreads for domestic consumption in the face of smaller butter supplies. In October 1943 the basic sugar rationing for all industrial users was increased by the OPA for the last 2 months of the calendar year to 90 percent of their base.

These important relaxations in the sugar rationing program, plus other minor ones, were reflected in a substantial increase in sugar distribution during the last 6 months of 1943, when deliveries by primary distributors for consumption in the continental United States totaled 3,496,405 short tons, raw value, compared with 2,843,663 tons in the January-June 1943 period, and with 2,991,947 tons in the last half of 1942, the year when sugar rationing began.

Although receipts of sugar from offshore areas in the last 6 months of 1943 were at a higher level than in the first half of the year, the supply outlook for 1944, already clouded in 1943 by the extremely severe decline in beet-sugar production, became even darker when it became known that demands of the 1944 industrial alcohol program on sugar-bearing materials would be particularly heavy. WFA had been notified that in view of the limitations on the use of corn and other grains for the manufacture of such alcohol, the equivalent of at least 1 million tons of sugar in the form of invert molasses would be needed for alcohol. Such a quantity represented almost 20 percent of the estimated 1943 civilian consumption of sugar in the United States. Accordingly, the industrial sugar ration was cut back to the 80 percent level on January 1, 1944.

The sugar supply situation became still more critical early in 1944 when sugar arrivals by water fell substantially behind schedule, and for a while it appeared that in addition to cutting the industrial sugar ration sharply for the second calendar quarter it would also be necessary to reduce the household sugar ration somewhat. Following negotiations between WFA and the War Shipping Administration, however, WSA promised an increased number of vessels for moving sugar from the Caribbean, and the only cut deemed necessary was in the industrial sugar ration, which was reduced to 70 percent for the April-June period. Later, this cut was restored retroactively by OPA when sugar arrivals by water increased greatly. During the second quarter of 1944 these arrivals averaged almost 600,000 tons a month, compared with about 350,000 tons in the first quarter.

The sugar supply outlook for 1944 began to improve somewhat when it became evident that the Cuban sugar crop would probably be one of the largest on record. The bulk of this crop, like the 1942 and 1943 crops, had been purchased by the United States Government. It was extremely fortunate that the sugar crop of the neighbor republic so greatly exceeded expectations, for not only were the 1944 continental beet crop and the 1943-44 Puerto Rican cane crop expected to be considerably below normal size, but sugar disappearance in the first half of 1944 was running at the highest level since 1941, the record distribution year.

Sugar deliveries by primary distributors in the continental United States in the January-June 1944 period totaled 3,202,262 short tons, raw value, compared with 2,843,663 tons during the corresponding period in 1943. On the other hand, sugar stocks in the hands of pri-

mary distributors in the continental United States on July 1 were approximately 200,000 tons smaller than on the same date a year earlier.

An early survey of 1944 sugar-beet acreage indicated that it would be only about 9 percent greater than the extremely small 1943 acreage, despite a price-assistance program which assured beet growers an average of \$12.50 a ton of sugar beets, the highest return on record. The output of Puerto Rico in the campaign of the current year was about 400,000 tons smaller than that obtained from the 1941-42 crop because fertilizer was completely lacking at the height of the 1942-43 Caribbean submarine activity, and because of the most severe drought on record. Hawaiian sugar production remained at substantially the level of 1943—about 100,000 tons below pre-war levels. Louisiana sugar production from the 1944 crop is expected to be only slightly smaller than the high 1943 output. Price-support programs financed by the War Food Administration were in effect in 1944 in the last three areas mentioned. The OD cooperated with the CCC in formulating these price-support programs for sugar beets and sugarcane.

During the first three quarters of 1944, the ration of all industrial sugar users (except those known as provisional users) was established at 80 percent of their sugar use in 1941, the year of record sugar distribution in this country. Since there were no restrictions on the quantity of sugar available to such manufacturers for the large quantities of food products going to the armed forces, and for lend-lease and other governmental purposes, many food processors were able to operate at approximately the same level as in 1941 and substantially above pre-war levels.

Manufacturers of fruit preserves and canned fruits and vegetables receive sugar according to the unit of product manufactured. Consequently, the more they produce, the more sugar they obtain.

TABLE 20.—*Estimated gross conditional payments to producers, under the Sugar Act of 1937, 1943 program*¹

	Dollars		Dollars
SUGAR-BEET STATES		SUGAR-BEET STATES—continued	
California.....	3,000,000	Wisconsin.....	280,630
Colorado.....	4,159,221	Wyoming.....	730,721
Idaho.....	1,627,143	Total.....	17,611,424
Illinois.....	25,525	SUGARCANE STATES	
Indiana.....	60,829	Florida.....	701,009
Iowa.....	28,009	Louisiana.....	6,768,168
Kansas.....	100,843	Total.....	7,469,177
Michigan.....	1,044,851	SUGARCANE INSULAR REGION	
Minnesota.....	598,043	Hawaii.....	8,205,809
Montana.....	1,694,706	Puerto Rico.....	12,000,000
Nebraska.....	1,457,023	Virgin Islands.....	96,000
New Mexico.....	4,750	Total.....	20,301,809
North Dakota.....	309,310	Grand total.....	45,382,410
Ohio.....	307,763		
Oregon.....	401,000		
South Dakota.....	115,459		
Texas.....	598		
Utah.....	1,195,000		
Washington.....	510,000		

¹ Include acreage-abandonment and crop-deficiency payments, but do not include payments made by the CCC, which in the case of sugar beets averaged \$1.53 per ton and of Louisiana sugarcane, 24 cents per ton.

TOBACCO

Strong demand for all types of tobacco continued during the 1944 fiscal year. Production of flue-cured tobacco, the class most important in cigarette manufacture, was approximately 791 million pounds, as compared with about 812 million pounds during the preceding year. The production of burley tobacco, also an important cigarette constituent, was about 390 million pounds, as compared with about 344 million pounds during the preceding year. Cigar tobaccos were short of demand. The shortage of supplies of certain insecticides, which before the war were imported, made it necessary to reserve certain grades of tobacco for nicotine extraction.

FOOD ORDER ADMINISTRATION

During the year five War Food Orders controlling the distribution of tobacco were administered by the Office of Distribution. War Food Order 68 restricted the purchase of domestic cigar-binder and cigar-filler tobaccos. The restrictions were placed on various types of these tobaccos to prevent abnormal distribution through the purchase of crops before they were grown and cured. This method of buying is highly speculative because neither producers nor buyers know the value of a growing crop. But for the restrictions, producers could have been victimized by unscrupulous buyers and the practice, if widespread, could have disrupted normal marketing practices and resulted in inequitable distribution of these tobaccos to manufacturers.

WFO 4.3, effective from August 14, 1943, through the remainder of the year, effected the distribution of the 1943 crop of flue-cured tobacco which had been recommended by the Combined Food Board. The Board recommended a distribution of the crop in such a way that the armed services and allied nations would receive an equitable share and that domestic supplies would be safeguarded to the extent that the size of the crop would permit. The recommended distribution was 42 percent of the crop for lend-lease and for export to specified countries, and 58 percent for domestic use.

The 1943 crop of flue-cured tobacco totaled approximately 791 million pounds, green weight, enough to provide about 458.8 million pounds for domestic use and 332.2 million pounds for lend-lease and export to specified countries. Reports from manufacturers indicated that they bought, exclusive of scrap, 449.8 million pounds, green weight, from the 1943 crop. Scrap from the 1943 crop was estimated at 9.5 million pounds. If the total amount was purchased for domestic use, manufacturers acquired 459.8 million pounds—only half a million pounds more than the Board recommended for domestic use. This would leave 331.8 million pounds available for other purposes. The order therefore distributed the crop in accordance with the recommendation.

Compliance with the provisions of the order was very satisfactory.

War conditions restricted imports of certain contact insecticides and necessitated a greater use of nicotine for combating insect pests ordinarily controlled by them. WFO 4.4, issued to insure a supply of nicotine for this purpose, reserved certain grades of tobacco for the

manufacture of nicotine. Acquired through the tobacco-diversion program, these tobaccos were delivered to tobacco byproducts manufacturers for nicotine extraction.

Effective December 3, 1943, and still in force at the end of the fiscal year, WFO 4.5 was issued to distribute equitably the 1943 crop of burley tobacco for domestic use and for export. Usings of burley by domestic manufacturers amounted to almost 415 million pounds, green weight, for the 12 months ended September 30, 1943. This amount exceeded the total 1943 burley production, and allocation of the crop was necessary to provide for equitable replacement of rapidly depleting manufacturers' stocks.

Under the order, 48 manufacturers were entitled to buy 1943-crop burley. Of these, 15 could buy at auction and from dealers, and 33 from dealers only. Only 3 manufacturers who could buy at auction had buyers on markets to make auction purchases. The other 12 manufacturers acquired their auction allocation by placing buying orders with dealers. In all, 69 dealers qualified for the purchase of 1943-crop burley tobacco at auction.

Reports indicated excellent compliance by manufacturers and dealers.

Purchase restrictions on cigar-binder and filler tobaccos expired in January 1944. Reports from the trade and growers indicated that purchase restrictions on the 1944 crop of cigar binder and cigar filler types were necessary to prevent maldistribution and to protect producers.

Effective June 14, 1944, WFO 4.6 was issued to prevent undesirable practices and to preserve normal marketing methods. Still in force as the year ended, its provisions would "freeze" 1944-crop tobacco on the farm until restrictions were lifted to permit sales of cigar binder and filler tobaccos. The lifting of the restrictions would depend on the condition of the crop and the speed with which farmers who grow the several types cured and prepared their tobaccos for market.

INSPECTION

During the year inspection service was maintained on 103 out of 138 markets¹ designated by the Secretary of Agriculture under the Tobacco Inspection Act for free and mandatory inspection service. More than 911 million pounds of tobacco were inspected, exclusive of nearly 50 million pounds of resales, or approximately 73 percent of the total sold at auction.

In addition about 6 million pounds of tobacco in hogsheads were inspected for cooperative marketing associations, and about 24½ million pounds were inspected under the tobacco diversion program. An inspection service was furnished also in connection with the manufacture and shipping under the lend-lease program of 350 million cigarettes and 80,000 pounds of native twist tobacco a month.

The inspection service covered all of the auction markets where fire-cured, dark air-cured, and burley tobacco was sold, and 40 out of 75 markets where flue-cured tobacco was sold. Expansion of the serv-

¹ Four of the 138 markets sell 2 types and are listed twice.

ice to the remaining 35 markets in the flue-cured producing area was hampered by lack of inspectors.

TABLE 21.—*Status of tobacco inspection*

Type of tobacco	Auction markets	Auction markets desig- nated as of June 30, 1944	Inspected markets	1943-44 season		
				Sales		
				Total	Inspected	
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>Percent</i>
Flue-cured.....	75	75	40	781,601,919	437,973,467	56.0
Fire-cured.....	12	12	12	54,994,999	54,994,999	100.0
Burley.....	43	43	43	389,546,454	389,546,454	100.0
Dark air-cured.....	8	8	8	28,986,521	28,986,521	100.0
Total.....	138	138	138	1,255,129,893	911,501,441	72.6

A perennial difficulty in maintaining a corps of inspectors has been the seasonal nature of the work. The problem was particularly difficult during 1944 because of the manpower situation. It was less serious in some sections of the country where tobacco is sold in winter and the inspectors often work on farms during the rest of the year. In the Southeast, however, many inspectors have no other occupation.

The OD has therefore adopted the policy of giving selected inspectors year-round employment. The persons picked are inspectors with a relatively high status in the service—men employed on contact work in the area surrounding their headquarters market or on general demonstration work over a wider area. The market contact work included meeting growers through local county agents and keeping in touch with the local tobacco trade.

Training

The educational program continued to demonstrate to approximately 53,000 tobacco growers during the year the grades, the best methods of handling and preparing the tobacco for market, and the value and use of Federal inspection and market reports on the auction floor. The volume of demonstration work is indicated in table 22.

TABLE 22.—*Tobacco demonstration work, 1941-44*

Item	1941		1942		1943		1944	
	Num- ber	Attend- ance	Num- ber	Attend- ance	Num- ber	Attend- ance	Num- ber	Attend- ance
Farm demonstrations.....	1,561	25,614	1,395	19,672	1,391	17,441	1,258	15,588
Farmers' meetings.....	260	8,270	108	3,408	101	3,450	277	6,981
School demonstrations.....	630	23,582	653	25,121	559	20,172	610	21,686
Farm visits and other contacts.....		5,084		4,208		5,084		8,583
Exhibits at county fairs and farm conventions ¹	31		25		7			
Training courses for inspectors.....	2	25	6	138	4	77	6	121
Training courses at agricultural colleges ²	7	247	4	196	5	146		
Grading tests held in field.....	14	196	6	41	4	46	7	31
Pieces of literature distributed ³	117,440		62,500		62,000		58,000	

¹ Agricultural fairs have been generally discontinued in wartime.
² Work discontinued until agricultural college enrollments increase.
³ Printing largely suspended for the duration of war.

DIVERSION

The tobacco diversion program was continued during the 1944 fiscal year. Under it, raw material was made available for the manufacture of nicotine insecticides to protect crops. Authorizations to divert totaled 24,888,756 pounds, representing a payment by the Government of \$3,103,698. The program was changed in order to permit payment by the nicotine manufacturers on the basis of the nicotine yield of the leaf tobacco rather than of the type of tobacco purchased. Administered with the diversion program was WFO 4.4, which reserved certain grades of fire-cured and dark air-cured tobacco of the 1943 crop for insecticide manufacture.

MARKET NEWS

The market news service supplies to tobacco growers and the trade current average prices of tobacco by United States grades and other important market information. By regular use of the reports on markets where the service is maintained, the grower receives current, unbiased, accurate information that enables him to determine whether to accept or reject the price offered for his tobacco.

The year saw a continuation of a special program, developed in 1943 in cooperation with the Agricultural Adjustment Agency, whereby current and season-to-date information on pounds, yields, and general average price by types was made available.

Market news reports were issued daily and weekly from 2 permanent field offices and 11 offices temporarily set up for the various types of tobacco as the marketing seasons progressed.

In the 1943-44 marketing season 909 separate reports, including regular daily, weekly, and seasonal reports and special reports for the press and radio, were issued for all auction tobacco types. A total of 659,867 copies of these reports was distributed. Of these, 545,101 copies were placed at the disposal of growers on 518 auction sales floors located at 104 sales centers.

Stocks Reports and Publications

The quarterly Report on Stocks was further expanded to include editorial comments and analyses of current conditions. The information included in this report on quantities, types, and groups of grades in the supply is indispensable to the trade and necessary in the planning of production goals, allocations, and distribution orders.

The Annual Report on Tobacco Statistics was contracted because data on imports and total exports of the United States had not been available for publication since 1941. New tables were added to cover changes in the classification of cigars and of Internal Revenue tax rates on them.

Four tobacco-market reviews were issued, covering the following general classes: Flue-cured types, class 1; fire-cured types, class 2; light air-cured types, class 3(a); and dark air-cured types, class 3(b). These reviews included information on the opening and closing dates for the various markets, number of sales floors and buyers, sales summaries by crop years, types, months, and dates, information on resales, analyses of the crop on the group, quality, and color basis, weekly and

seasonal prices by grade, and charts showing changes in prices of representative grades over a period of years.

COMMODITY EXCHANGE ACT

Trading in 12 agricultural commodities for future delivery, supervised under the Commodity Exchange Act, was conducted during the year by 14 exchanges licensed as contract markets.

Licensed market:

Regulated commodity

Chicago Board of Trade	Wheat, oats, rye, barley, lard, cotton.
Chicago Mercantile Exchange	Eggs, potatoes.
Chicago Open Board of Trade	Wheat, oats, rye, barley.
Duluth Board of Trade	Wheat.
Kansas City Board of Trade	Wheat, bran.
Milwaukee Grain and Stock Exchange	Wheat, oats, rye.
Minneapolis Chamber of Commerce	Wheat, oats, rye, barley, flaxseed.
New Orleans Cotton Exchange	Cotton.
New York Cotton Exchange	Cotton.
New York Mercantile Exchange	Eggs, potatoes.
New York Produce Exchange	Cottonseed oil.
St. Louis Merchants' Exchange	Bran.
Seattle Grain Exchange	Wheat.
Wool Associates of the New York Cotton Exchange	Wool tops.

Volume and Trading

Although there was no futures trading in corn and soybeans, the total volume of transactions in the five grains traded in (wheat, oats, rye, barley, and flaxseed) was 6,450 million bushels, up 13 percent from 1942-43 (when corn and soybeans were included).

The year's trading in wheat futures was down 2 percent from the preceding year, and the volume of flaxseed futures transactions was materially reduced. Impressive increases, however, occurred in rye, oats, and particularly in barley. Trading in barley, at the highest level in 9 years, increased 1,341 percent over the preceding year.

The volume of futures transactions in rye, after increasing for 5 years, was 106 percent above 1943 and by far the greatest since official recording had begun 23 years before. Trading in oats futures increased 19 percent, reaching its highest level in 7 years. Trading in cotton futures totaled 39 million bales, 8 percent down from 1943, and in wool tops futures it totaled 44 million pounds, up 30 percent from 1943.

The estimated value of futures trading in all commodities was 21 percent above 1943. Summaries of futures trading and open contracts are shown in tables 23 and 24.

TABLE 23.—Volume and estimated dollar value of futures trading, by commodities, fiscal years 1942, 1943, and 1944

Commodity	Volume of futures trading			Estimated value of futures trading		
	1942	1943	1944	1942	1943	1944
				Dollars	Dollars	Dollars
Wheat..... thousand bushels..	3, 831, 001	2, 703, 210	2, 641, 736	4, 535, 905, 000	3, 670, 959, 000	4, 361, 506, 000
Corn..... do.....	1, 235, 641	¹ 851, 787		965, 036, 000	788, 755, 000	
Oats..... do.....	524, 029	610, 552	726, 386	257, 822, 000	346, 183, 000	584, 741, 000
Rye..... do.....	790, 011	1, 469, 683	3, 031, 127	534, 047, 000	1, 066, 990, 000	3, 458, 516, 000
Barley..... do.....	5, 587	3, 124	45, 043	3, 883, 000	2, 455, 000	56, 349, 000
Flaxseed..... do.....	42, 013	28, 533	5, 345	92, 431, 000	78, 637, 000	16, 270, 000
Soybeans..... do.....	681, 656	² 16, 000		1, 179, 265, 000	27, 840, 000	
All grains..... do.....	7, 109, 938	5, 682, 889	6, 449, 637	7, 568, 389, 000	5, 981, 819, 000	8, 477, 382, 000
Cotton..... thousand bales..	64, 903	42, 738	39, 170	5, 838, 052, 000	4, 278, 084, 000	4, 032, 552, 000
Wool tops..... thousand pounds..	50, 990	33, 820	44, 045	65, 114, 000	42, 444, 000	58, 272, 000
Butter..... carlots.....	26, 467	7, 102		180, 501, 000	59, 589, 000	
Eggs..... do.....	41, 975	9, 005	6, 085	152, 420, 000	42, 594, 000	40, 855, 000
Potatoes..... do.....	10, 539	4, 237	1, 833	10, 092, 000	5, 083, 000	2, 788, 000
Millfeeds..... tons.....	809, 450	336, 370	120	24, 243, 000	11, 201, 000	4, 000
Cottonseed oil..... thousand pounds..	1, 286, 370	31, 260	6, 180	171, 087, 000	4, 345, 000	871, 000
Cottonseed meal..... tons.....	860, 400	88, 500		31, 190, 000	3, 319, 000	
Soybean meal..... do.....	623, 100	21, 600		25, 229, 000	912, 000	
Lard..... thousand pounds..	1, 838, 000	5, 350	550	205, 856, 000	706, 000	75, 000
Total.....				14,272,173,000	10,430,096,000	12,612,799,000

¹ Trading suspended June 26, 1943, to Aug. 29, 1944.

² Trading suspended Feb. 19, 1943.

TABLE 24.—Annual average of open contracts on all contract markets, by commodities, 1939-40 to 1943-44

[Average of open contracts at end of each month] ¹

Commodity	1939-40	1940-41	1941-42	1942-43	1943-44
Wheat..... million bushels..	120. 4	79. 2	71. 4	67. 2	65. 5
Corn..... do.....	39. 7	24. 1	53. 6	42. 7	(²)
Oats..... do.....	16. 0	11. 9	15. 7	19. 4	20. 3
Rye..... do.....	15. 3	17. 1	25. 2	39. 1	46. 5
Barley..... do.....	. 6	. 2	. 2	. 2	1. 7
Flaxseed..... do.....	1. 2	1. 6	2. 1	1. 2	. 3
Soybeans..... do.....		³ 10. 2	7. 9	. 8	(⁴)
Cotton..... million bales..	2. 0	1. 4	2. 1	1. 8	1. 6
Wool tops..... million pounds..	10. 9	7. 4	4. 1	3. 5	4. 6
Butter..... thousand carlots..	1. 0	1. 0	1. 7	. 4	
Eggs..... do.....	2. 2	1. 8	2. 0	. 6	. 5
Potatoes..... do.....	(⁵)	(⁵)	. 6	. 4	. 2
Bran..... thousand tons.....	21. 5	27. 9	36. 6	18. 0	
Shorts..... do.....	4. 8	10. 8	11. 9	4. 6	
Middlings..... do.....	3. 4	2. 2	1. 4	2. 0	
Cottonseed meal..... do.....		⁶ 26. 8	44. 9	7. 0	
Soybean meal..... do.....		⁶ 46. 9	30. 2	2. 0	
Cottonseed oil..... million pounds..		⁶ 165. 2	65. 4	3. 0	. 7
Lard..... do.....		⁶ 146. 6	87. 6	. 6	. 1

¹ In computing annual averages of month-end open contracts, yearly totals of these figures were divided by 12, although in some markets there were no contracts open at the end of 1 or more months. An exception was made for commodities which came under regulation during a fiscal year shown. In such cases, averages were computed on the basis of the number of months during which reporting requirements were in effect.

² Trading suspended June 26, 1943, to Aug. 29, 1944.

³ Open-contract figures not available before Dec. 9, 1940.

⁴ Trading suspended Feb. 19, 1943.

⁵ Less than 100 carlots.

⁶ Open-contract figures not available before Mar. 17, 1941.

Registration of Brokers and Traders Reports

Registrations were issued under the act to 537 futures commission merchants engaged in accepting orders from the public for the purchase or sale of commodity futures on licensed contract markets. Registered brokers handled commodity futures orders in 1,433 offices located in 46 States, the District of Columbia, Hawaii, and 7 foreign countries. Registrations issued to floor brokers engaged in executing orders on the trading floors of contract markets totaled 436.

Under the regulations, merchants, processors, farmers' marketing organizations, and other traders in the commodity futures markets report their trading operations and open-futures positions daily to the Office of Distribution whenever their futures commitments equal or exceed a specified amount. In addition, large traders in the cash-grain or spot-cotton business must report stocks and commitments of grain or cotton.

From clearing members of the various contract markets are received daily reports showing the total volume of transactions, open contracts carried on the books, and open contracts of individual large trader customers. An analysis and interpretation of these reports, about half a million of which were received during the year, is basic to the supervision of commodity futures markets. From time to time special surveys supplemented the regular reports.

During the closing months of the 1944 May rye future on the Chicago Board of Trade, the reporting limit was lowered so as to require from future commission merchants reports that showed all accounts in that future which equaled or exceeded 25,000 bushels. Thus all elements with a substantial position in the May rye market were disclosed, and the comprehensive analysis of trading operations and positions was simplified.

Scrutiny of Exchange Rules

During the year, proposed and newly adopted rules and regulations of various contract markets were submitted, pursuant to requirements of the act, to the Office of Distribution where they were examined to determine compliance with statutory provisions.

Use of Market in Distributive Operations

Use of the futures market by merchandisers, processors, and farmers' marketing organizations continued substantially unchanged. As in 1943, 18 large grain and cotton cooperative marketing associations used the futures market to an extent that placed them in the "special accounts" reporting status.

Extensive use of wheat futures for hedging by farmers' marketing organizations, merchants, and processors was shown by the reports of such traders, the positions in a single wheat future on one market equaling or exceeding 200,000 bushels. On June 16, 1944, when the visible supply of wheat in the United States was the smallest in 4 years, 30 such concerns reported stocks of wheat and wheat products (including purchase commitments) totaling 96 million bushels and unfilled sales commitments totaling 92 million bushels. To protect themselves against price changes, these concerns as of that date had hedging positions in the futures markets of 22 million bushels long and 14 million bushels short.

Use of the contract markets' futures-trading facilities as an integral part of the merchandising operations of grain merchandisers and processors was recognized by the Office of Price Administration in connection with its establishment of maximum prices for wheat. OPA said trading in wheat futures "is an essential feature of the market. The use of futures as a hedging instrument provides a type of price insurance which is important to the merchandising and warehousing of wheat in large quantities. Protection from risks arising from price changes makes it possible to store and merchandise wheat on a narrower margin than would otherwise be possible."

An example of the extent to which facilities of the futures market were used in the distribution of commodities occurred in January 1944, when the Federal Surplus Commodities Corporation advertised for offers of cotton for lend-lease, and all except 200 of the 332,352 bales offered by 60 firms, corporations, and farmers' cooperative associations were purchased on the basis of futures market quotations.

Protection of Customers' Funds

One very important provision of the act is that a futures commission merchant may not commingle with his own funds the funds which his customers have deposited with him as margin. Before enactment of the Commodity Exchange Act amendments of 1936, customers of insolvent commodity brokerage firms were merely common creditors. Enforcement of the provision involves examination by OD accountants of the books and records of every registered futures commission merchant.

New Cotton Futures Contract

Use of a new cotton futures contract (see Cotton, Fiber, and Naval Stores) was begun on the New York Cotton Exchange on August 2, 1943. Trading was to be conducted in both the old and new contracts through July 14, 1944, the final trading day for futures contracts calling for delivery in July, last delivery month under the old contract.

In the new contract the tare allowance is reduced from 26 49 pounds per 500-pound bale to 21 pounds, with no allowance for patches, and the receiver pays the deliverer the value of 7 pounds at the average invoice price for every bale covered with cotton bagging conforming to Department of Agriculture standards. Whereas standard- and high-density bales were deliverable on the same basis under the old contract, the new contract permits delivery of standard-density bales only, and high-density bales and cotton previously compressed to high density are not eligible for delivery.

The new contract also reflects an important change in the method of determining premiums and discounts applicable to grades other than Middling (the basic grade) deliverable on contract. This change, applying to cotton contracts that matured after July 1944, was based on an amendment to the regulations under the Cotton Futures Act.

Under the old New York contract and the New Orleans and Chicago contracts, price differentials for nonbasic grades reflected averages of price differences for corresponding grades quoted in 10 designated spot markets, irrespective of delivery point. Under the revised system if delivery is made at or near a Gulf port—Galveston, Houston,

New Orleans, or Mobile—the differentials are determined from the averages of differences in Memphis, New Orleans, Dallas, Houston, and Galveston. (These differentials apply to all deliveries on New Orleans and Chicago contracts, inasmuch as these deliveries are restricted to Galveston, Houston, and New Orleans.)

Should delivery on a New York contract be made at an Atlantic port—New York, Norfolk, Charleston, or Savannah—the appropriate differentials are the averages of differences quoted in Charleston, Augusta, Savannah, Montgomery, and Memphis.

Enforcement

Purpose of Federal regulation of commodity futures trading under the Commodity Exchange Act is to safeguard and facilitate commerce in the included farm commodities by preventing trading abuses. The futures market provides an outlet for speculation which can be observed, measured, and controlled. When opportunity for regulated futures trading is lacking in specific commodities, speculators may be driven into the cash markets, with hoarding, inventory speculation, and black-market operations resulting.

The ever-present need for vigilant enforcement of the regulations under the act was apparent during the year in the number of traders whose operations were at or near the speculative trading limits which the Commodity Exchange Commission had set up to prevent excessive speculation. The limit on the net long or short speculative position of any person in the grain futures market is 2 million bushels. The limit on the speculative position of any person in the cotton futures market is 30,000 bales in 1 future on 1 market. In 74 and 29 instances, respectively, in grain and cotton futures trading during the year, individual traders held speculative positions of 90 to 100 percent of the respective limits. These holdings would seem to reflect traders' ready willingness to assume an even larger share in the market were the restrictions not in force.